

SELECT COMMITTEE

ON

TRANSPORT

(IRISH SUB-COMMITTEE).

MINUTES OF EVIDENCE

WITH

APPENDICES THERETO

AND

STATEMENTS ACCOMPANYING THE SECOND REPORT

OF THE

IRISH SUB-COMMITTEE

Appointed by the Select Committee on Transport to Investigate and
report upon the facilities for transport offered by

THE PORTS AND CANALS OF IRELAND.

*Ordered, by The House of Commons, to be Printed
4th November and 14th November, 1918*

LONDON

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1919

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SELECT COMMITTEE ON TRANSPORT

(IRISH SUB-COMMITTEE.)

The Sub-Committee met at the Mansion House, Dublin, on Saturday, 7th September, 1918, to consider questions of procedure, etc. Sir ARTHUR SHIRLEY BENN, M.P., presided.

The Lord Mayor received the members of the Sub-Committee, and welcomed them to the Mansion House. He expressed his good wishes for the success of their investigation of the very important matters of Port development and improvement of the System of Inland Water Transport in Ireland, and hoped that the result would add materially to the welfare of the country.

MINUTES OF EVIDENCE

FIRST PUBLIC SITTING: MONDAY, 9th SEPTEMBER 1918,

In the OAK ROOM, MANSION HOUSE, DUBLIN, at 2 p.m.

MEMBERS PRESENT.

(Colonel) John Grettton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. P. J. Hannan,
Mr. PHILIP MACNULTY, Secretary

Sir ARTHUR SHIRLEY BENN, M.P., in the Chair.

Mr. M. A. EDEY, Irish Member of the Development Commission, called in and Examined.

Chairman.

I think you are aware, Mr. Edey, that a Select Committee was appointed in Parliament for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and co-ordination; and to ensure that such developments and improvements shall be adequate and suitable to meet the national requirements, and to make recommendations. The Committee decided that in order to get further information about Ireland a Sub-Committee should be appointed "To investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose." What we are anxious to get is information which we can submit to our main Committee, so that they may take action later on, and we understand that you are willing and able to give us information regarding the fisheries and harbours and ports, and more ideas on transportation by rail, waterway, and motor.—That is so, sir.

3 If you would be good enough to do it we would feel obliged.—The principal subject on which I am able to give information is the fishery harbours and ports. I am speaking semi-officially. The Development Commissioners have more to do with fishery harbours and ports than with waterways, rail or motor transport. I will give you details of the allocation by the Development Commissioners of a sum of £100,000 to be expended on fishery harbours and allied purposes in Ireland during a period of five years as from May, 1921. When the Commission came into existence we had applications from the Department of Agriculture and from the Congested Districts Board. The fishery harbours of the country are partly under

Chairman—continued.

the control of the Department of Agriculture, and those on the seaboard in congested areas are under the control of the Congested Districts Board. We had applications from both bodies, and as the first place we dealt with the Department of Agriculture, which had control of a larger area of seaboard than the Congested Districts Board. We had negotiations extending over a considerable period with the Department. They put forward various schemes before us, but after detailed discussion of them all, and after visits paid by myself and other Commissioners to the various fishery piers, we settled on the following allocations so far as the Department of Agriculture was concerned. Altogether we gave the Department £54,250. We allocated to the construction of a new pier at Helick, Co. Waterford, a sum of £19,000. It may prevent any confusion if I hand you this old chart of Dungarvan Bay (Chart landed in.) The only fishery is Ballynagall.

Mr. Lindsay: Where about is Helick?

Mr. Edey: At the point of the Bay.

Witness: Ballynagall is the original fishery pier, and the original idea was to improve Ballynagall, but after a discussion it was considered more advisable to build a new pier at Helick, which has to be constructed with funds from the Development Commissioners. We allocated a sum of £19,000 for that purpose, making a condition that there should be a local contribution. We put it in these words, "from other sources"—by local or other sources—a contribution of £3,000. The undertaking was supposed to cost £22,000. We subsequently agreed that it was necessary to improve the means of transport between Helick and the Port of Dungarvan, and various schemes were considered in connection with that. These schemes have been practically settled as water-transport

9 September 1918.]

Mr. M. A. ENNIS.

[Continued.]

Chairman—continued.

port, but at the same time it is not absolutely ruled out that a large bridge might not be undertaken in place of the water transport. We have agreed to contribute £1,000 for the purpose of improving transport between Helrick and Dungarran, and we have also held in reserve an unexpended balance of our grant to the Department in view of the possibility of having to make a small increase in the grant for the construction of the new pier at Helrick. We have not finally allocated the small balance that remains.

Chairman.

3 What will that pier be used for—what sort of boats?—For what I may call in-shore fisheries, or for the smaller type of boat.

4 What is the average draft of water?—Of these boats it would probably be six or seven feet. This raised a question that we debated very fully at the time the Development Commissioners came into existence. It was pointed out that modern fishery development was dependent by means of large steam drifters and that our attention should be concentrated on providing harbours for that type of boat only. I held a different opinion myself. I held that while deep-sea fisheries are most important, there was also the aspect of the in-shore fishery, which from the point of view of the food of the people was also of very great importance and should not be lost sight of, and that the small ports should not be neglected. The war has turned people's attention more in that direction.

5 Can the place be made available for steam trawlers?—Yes, it may be made available except at certain times of tide, not at all times of the tide, but it would be available at certain stages of the tide, say half flood. Kilkeel, Co. Down, has an existing harbour in which it is proposed to make improvements. Kilkeel is a busy place, and the men there are very hard-working. We allocated £20,000 to the improvement of the existing harbour at Kilkeel. We further allocated £2,500 for dredging existing harbours; £4,250 for the purchase of a dredger; £1,000 for the purpose of improving the oyster fisheries; £3,000 for instruction to fishermen in the handling, repairs, etc., of motor boats; and we provisionally allocated £5,500 for dock extension at Arklow. These are the details of the £64,250 we have allocated to the Department of Agriculture. We allocated a similar amount to the Congested Districts Board. With regard to the Congested Districts Board, we had their applications before us also, and after considerable negotiations we settled down on the scheme. We have allocated to Buncrana and Rathmullan, in Lough Swilly, £25,000—the condition being that the Donegal County Council contribute £10,000, which they have agreed to. We have allocated to Burtonport, Co. Donegal, £10,000—the County Council to contribute £1,500; to Bellinamore, Co. Carrick, £7,500—on condition of receiving £2,500; to Dingle, Co. Kerry, £7,000. And then we have a balance unallocated of £6,750, making a total of £64,250. Of the unallocated balance of £6,750 the Congested Districts Board suggested £3,000 to Castlebar and £3,750 to Schull, but we held our decision over. The Congested Districts Board asked me to consult them with regard to Valentia Harbour. The Baltimore scheme is completed.

6 Where did the £2,500 come from in connection with that scheme?—From the County Council, and the local railway made some contribution. It has been a great success. The Congested Districts Board inform me that during April last year the fishermen got £31,500 for their catch in Bellinamore, owing to the increased railway facilities provided to London. Mr. Burgess gave great facilities for the carriage of the fish to England. It was suggested that Valentia should be made similarly self-supporting, and we decided that £6,750 should be allocated for that purpose. The Treasury have agreed, but there are some technical difficulties about the plan. The work, I take it, will be soon taken in hand.

7 Is that contribution to the improvement of the harbour at Valentia subject to any local contribution?—Yes. The balance of the money is being provided. The estimate of the Congested Districts Board is £10,000.

Chairman—continued.

Mr. Neale, General Manager, Great Southern and Western Railway Company.] My information, Mr. Ennis, is that it would cost nearly double that.

Witness.] The Congested Districts Board inform me that the scheme should be done for that money.

Chairman.

8 When was the estimate made, Mr. Ennis?—It was an estimate made within the past six or eight months, but it was only a provisional estimate.

Mr. Neale.] That is not for a pier.

Witness.] It is for the extension of landing facilities for the fish.

Chairman.

9 We cannot discuss that now. What is the next point you would like to bring before us, Mr. Ennis?—The next thing, I think, is a scheme for port improvement. We have had in the Development Commission a number of small applications regarding schemes that were not really worth consideration. They were really more in the nature of repairs. One scheme of genuine improvement was that of Drogheda, for the improvement of the cattle trade in connection with the Lanesboro and Yorkstown Railway. We had an application from the Commissioners to give help in regard to that matter. We offered to make, not a grant, but a loan to Drogheda on favourable financial terms, provided certain conditions were complied with—that we should have an undertaking that there would be a cattle trade service maintained. It was pointed out to us that undoubtedly Drogheda offered facilities for cattle trade from a very large district. It was shown that under the scheme of sending cattle through Drogheda from this district there would be a saving of a shilling a head as compared with the cost of sending them through the port of Dublin, and at the time the application was made there was labour trouble in Dublin and it seemed very desirable that there should be an alternative route.

10 What is the draught of water at Drogheda?—Not more than 12 to 15 feet.

Mr. Lindsay.

11 At low water?—High water spring tide. It is a tidal port. It is something like Wexford.

12 When you spoke of the Drogheda Commissioners do you mean Harbour Commissioners?—Yes. We also had an application for help from Galway. Their scheme seemed to be a scheme which it was eminently desirable to carry out. They have in Galway a very remarkably deep dock 22 feet on sill, but the channel leading up to it has only 15 feet of water and is rocky. The dock is useless for the berthing of steamers of considerable tonnage, which, if the channel were properly deepened, could berth there without difficulty. In that connection we had negotiations for a loan to Galway of £50,000. We were willing to give that loan, and the question arose as to the local contribution. We are always anxious that people who are desirous to carry out these schemes should give evidence of their belief in them by binding themselves to a local contribution. There was a suggestion that the County Council should be responsible for £10,000. Unfortunately, under the existing Act they had not legal power to do that. They have power under the Grand Jury Act of 1836, amended by the Act of 1898, to give a small sum in cash, and it was under discussion whether this sum in cash would not be accepted instead of the under taking to become responsible for the larger loan when the war broke out and things came to an end for the time being. This is evidently a desirable scheme.

Chairman.

13 Is this for dredging?—No, it is a rocky channel. It would cost about £50,000 to do the job.

Mr. Hanson.

14 What was the amount of the contemplated loan in Galway?—£50,000.

Chairman.

15 Before you pass from that, what amount of money have you at your disposal, or can you get at your disposal, for improvements?—At the present moment—

Id Yes

9 September 1918.]

Mr. M. A. ENNIS.

[Continued.]

Chairman—continued.

16. Yes!—Our original grant from Parliament was made for a period of five years. These grants to the fishery harbours were similarly made by us to cover five years, but grants in a number of cases have not yet been expended. In regard to Buncrana and Ballyvaughan the money is still held, and we should have been left through another million pounds were it not that large sums were yet unexpended. So far as the money that is actually in the Development Fund goes, we have roughly one million pounds left out of three million. We have expended about two-thirds.

Mr. Field.

17. Is that available just now?—Yes, but the Treasury won't allow it to be expended.

Chairman.

18. You have a million pounds unallocated?—No; a large portion has been provisionally allocated to reconstructing grants, etc.

19. How much is not allocated, roughly—half a million?—Yes, at perhaps £500,000 or £700,000.

20. The next point is financial participation?—In that case I was going to make a comparison as between the value of the post service, the waterway service and motor service. If that does not come within your terms of reference I shall not, of course, deal with it.

21. It is our duty to get all the information we can as to the means of transportation and as to how that means may be improved?—In that case I may say truly that I was asked, shortly after the war started, with regard to the development of the Limerick coal-fields, my opinion in reference to a scheme of motor transport, and I gave my opinion against it. We had made extensive enquiries in England as to the relative cost of motor transport as against light railways, and we were forced to the conclusion that railways were more suitable than motor service. We were advised that the upkeep of roads for motor transport in Yorkshire would be £200 per mile per year. In the case of Irish roads—of which I have had experience, as I was Chairman of the Irish County Council section of the Road Congress—I don't believe you could put on a motor service without spending money that the County Councils would not be inclined to grant, and I think you are driven to light railways. The narrow gauge would be absolutely useless in connection with the development of the Limerick coal-fields. If you see to handle coal commercially you should put it into your waggons and distribute it without any re-handling. We took up the scheme for the development of these areas by railway. I won't take up your time by going into the scheme. In this matter the Irish County Councils should have the same powers as English County Councils possess. Mr. Birrell, when he was Chief Secretary, promised me that he would pass a short Bill through Parliament providing Irish County Councils with similar powers for the construction of light railways. I was engaged in drafting the Bill, but he went out of office, and the Government are now constructing themselves two lines of railway as a war measure.

22. What gauge?—It is the normal gauge.

Mr. Lindsay.

23. The standard gauge?—Yes.

Mr. Field.

24. Does your objection, Mr. Ennis, to the motor transport regarding coal extend to fish, particularly where there is a very long distance to be travelled between the pier or harbour and the nearest railway station?—Coal and fish are quite different. One is heavy goods, and the other is of a different type.

25. I want your opinion as to whether you would approve a motor service for fish under certain favourable

Mr. Field—continued.

able circumstances from harbours to the nearest railway station?—Yes. I was speaking of the handling of heavy traffic like coal.

Mr. Lindsay.

26. In Yorkshire they were going to have the English standard gauge for the railways?—I think so. Narrow gauge railways in Ireland for coal development are practically useless.

27. Where are these two lines of railway that you say the Government are constructing as a war measure?—They are to run from Castlecomer, close to Ballyragget, at one end, and on the other end from Wolfhill to Athy. There is a short section between the two of about three miles, which would be a very expensive bit of line to make. It is a rocky hill. It would necessitate deep cutting or tunnelling, and it would be very expensive. With regard to the waterways question, I visited the Arigna coal-field, and in regard to that I would like to suggest running the railway to a point on the canal at a little place called Blackrock. This would make the canal system a practical means of developing the coal-fields of Arigna. It seems to me that the expense of bringing the coal to that point would be trifling indeed. There was a proposal for a line of railway which practically linked up the All Red route at Collooney. It would be a very expensive line to make.

28. Is Blackrock on the canal?—Yes.

Chairman.

29. There is some railroad development there now?—There have been several schemes of development. I have called attention to the possibility of utilizing the canal for coal transport from these mines. If there was something like a unified control of the canal and railway systems in Ireland I think that the waterways would be very much more useful than they are.

Mr. Field.

30. Is it the principle of the Board to which you belong, Mr. Ennis, that a contribution should be given by the local authorities before the work is commenced?—Not, it is not absolutely essential, but it is, I think, a very useful general rule to have local co-operation. We like to see the public interesting itself in the schemes in respect of which we make grants. The scheme of light railway development which we did contemplate with regard to the Limerick coal-field was this—instead of having a barefoot guarantee sold on the county and making the county pay 5 per cent. on the capital, we were of opinion that the County Council should become the undertakers and raise debentures. If the locality and the people in it had sufficient belief in the soundness of the undertaking they should be asked to provide half the capital and the Development Fund to find the other half.

31. Do I understand that the Drogheda business to which you refer is abandoned?—I don't know the results of the negotiations between the Drogheda people and the railway companies.

Mr. Hanson.

32. The proposition is that the local people should find half the capital?—I have not made that proposition. We know, as a matter of fact in connection with the Limerick coal-fields, that the localities would have found half the capital if we were prepared to provide them with the other half.

33. Have the Commissioners finally determined on giving the grant to Valentia instead of to Castlecomer?—The unallocated grant is assigned to Valentia, if the scheme of the Congested Districts Board can be carried into operation. It depends on the Board being in a position to carry out the scheme they suggest.

Sir JOHN PEARSE GRIFFITH, M.A., M.P., called in; and Examined.

Chairman.

34. We would be glad to hear evidence from you, Sir John, in connection with our Terms of Reference, which, I describe, you have seen?—I am afraid I must apologise for appearing before you, because I only got word yesterday that you desired to see me, and I have come totally unprepared for this inquiry.

0.178

Chairman—continued.

35. I don't suppose anyone would expect that you would be unprepared in regard to a subject on which you are such a well-known authority?—The subject is so wide that unless I know the lines on which you wish me to proceed I should feel very diffident in offering suggestions.

A 2

35. Our

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SIR J. GRIFFITH.

[Continued.]

Chairman continued.

36. Our duty is to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as we may consider necessary for this purpose.—In Ireland, of course, we have a number of harbours under very varied control. We have a number of harbours that are under trusts, just as most of our English harbours are. There are a number that have been constituted by different Departments of the State in this country. Some were constituted by the Board of Works, the Department of Agriculture has a say in some of them, and the Congested Districts Board in others. Your Committee is, I understand, going around Ireland. You will see a number of useful little ports, and, I am afraid, you will see a number that are practically useless. Most of them, as far as my experience goes, have been constructed for facilitating the fishing industry. Now that is a very useful function, and it has cultivated a class of capable men all around the coast—brave, good seamen, but whose appliances do not permit them to embark on deep-sea fishing which is followed by the French, Scottish, and English fishing companies. We have the Aberdeen, Fleetwood and Grimsby boats fishing in these waters, and yet we are not able to deal with these class of fishery.

37. Are there many of the places that have been made for in-shore fisheries that could be utilised for deep-sea fisheries?—I cannot say that definitely, but hardly any of the fishermen you meet go on the deep-sea fishing boats that are now engaged on the outer bank. I dare say you are acquainted with them on the North-East Coast. You see a large number of those boats going into Grimsby and Aberdeen and Fleetwood. These are fishing harbours which have been developed, in two instances certainly, by railways, who were practically the proprietors of the port and have worked with the object of developing a very fine trade, and have done so. Aberdeen is rather different. The development there is largely due to the energy of the people themselves and to the co-operation of the Harbour Board in Aberdeen. They have got a trust harbour which has become really a deep-sea fishery harbour. We have nothing of the kind in Ireland. When I came to the Port of Dublin in the early '70's we had seventy Dublin sailing trawlers in the Irish Channel. They have practically disappeared. They have been wiped out by the steam trawlers, which carry the bulk of the fish straight away to England. This is not exactly transit, but the problem of transit is, of course, involved in the industry.

38. Our Mun Committee has to consider what steps, if any, have to be taken for the internal transportation within the United Kingdom. It gives you a great deal of liberty?—As a person who has lived for more than fifty years in Ireland, I have a great desire that Ireland should develop the deep-sea fishery traffic, and not have the English dependent on getting their Irish fish supplies after a long sea passage of 300 or 400 miles.

39. Does not the fleet from Fleetwood now fish off the West Coast of Ireland?—I think so. They fish chiefly on the North-West Coast of Ireland. I am speaking of what I consider to be the most important banks of the west coast. I have a great desire that any development for a western port should include facilities for the deep-sea fishing in Irish waters. It is not thirty years since Aberdeen opened its great fish markets, and it is now one of the finest examples we have.

40. We want to hear from you, Sir John, about the Dublin Port.—I don't know whether you have got a map of the Dublin Port. I have one here brought up to the year 1917. I, of course, have been connected with the Port of Dublin for forty-two years as Assistant Engineer and Chief Engineer. It was in the year 1871 I first joined the service, and I have seen the development of the port pass through very remarkable phases, and rather successful phases, I think. The quays and walls have been practically rebuilt in my time, but it was not until the last ten or twelve years that anything was done towards equipping the port for the rapid discharge of large vessels, except by private firms.

Mr. Keating.

41. You say the port was not equipped—what was

Mr. Keating—continued.

the cause of that?—It is difficult to answer that question definitely. The reason is rather of a general character. The development of the equipment of British ports had not kept pace with the Continental ports.

42. What is the reason that Dublin is not so well off as Belfast—is there any difficulty in the way?—I see no difficulty. I find Dublin is as well equipped. Belfast was behind time until the last thirty years or so.

Mr. Field.

43. Is it your view that the Irish ports, as a rule, are very much behind, in the matter of equipment, Continental ports, such as Hamburg, for the loading and unloading of ships?—We have improved lately, but we were very much behind time. Hamburg, forty years ago, was equipped in such a way as to enable it to discharge the greatest tonnage per linear foot of quay of any port in Europe. Their engineer told us that, and asked me to come over and see Hamburg. He had come over to Dublin to see our big block laying, which was a very striking feature of the port work at the time. I went to Hamburg and found the port equipped with cranes, and they made every vessel using those quays pay for the crane whether they used them or not. At that time Liverpool was the principal port in England that had hydraulic equipment. I sent a copy of my "James Forrest" lecture to your Secretary, it goes into the whole matter.

Chairman.

44. We read it and thoroughly appreciated it—I felt so strongly about this matter that when I was in the service of the Port Board I was instrumental in getting them to seek powers from Parliament to secure this equipment. The port had not the Parliamentary power, until 1902, to erect a power-station for the supply of electricity for its own cranes. I should not say that there was no equipment in the port, because certain berths were allocated by the Board to companies, and these companies put up their own private installations. For instance, the London and North Western Railway Company had put up their hydraulic cranes years before the port authorities put up theirs. In Hamburg, roughly speaking, the port, when I saw it first, was provided with one steam crane to every hundred feet of deep-sea quay, with the result that vessels cleared and loaded more rapidly there than in any other port in Europe. In Hamburg, on my first visit, I saw steam cranes, which about ten years afterwards were replaced by hydraulic cranes. Ten years later they substituted electricity.

Mr. Field.

45. How long ago is that?—It must be 20 years ago.

Mr. Lindsay.

46. In 1902 you said that the Port of Dublin got Parliamentary powers?—Yes.

47. That is 15 years ago; what has been done in the meantime?—We got an electric power station. The Corporation at the time was not able to supply us with current. We delayed to see if they could do so, but they decided that they were not in a position to supply us. We then went on with our small power station.

48. You have a certain number of electric cranes in the port?—Yes, about 15.

49. Are they capable of handling a big weight?—Most of those erected were 5-ton cranes and one a 100-ton crane for heavy traffic. That was built in Germany.

Mr. Keating.

50. Would you be disposed to make any suggestion for increasing the trade into Dublin Port—is it doing as large a trade as Dublin is entitled to; and, if not, why?—Personally, I hold rather strong opinions about Dublin. It is exceedingly well situated for distribution, and I think if we had set ourselves to work to make it a first-class distributing centre we could have done something better than we have done. One of our quays has no railway communication. The whole of the South Quay has got no railway facilities, and that

makes

* The Twenty-fourth "James Forrest" Lecture delivered at the Institution of Civil Engineers, London, on the 26th October, 1918, by Sir John Pusey Griffith.

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[Continued.]

Mr. Keating—continued.

unless it is purely local quay, because everything has got to be carted. The Northern Quays are tolerably well connected with railways. We have a very large cross-Channel trade, but our foreign trade is much smaller.

Mr. Field.

51. Would you suggest that the South Quay ought to be connected with the railways as soon as possible?—I was very desirous that it should be. It is a difficult thing to do, I grant you. The last scheme that I had in my mind was a transporter bridge for taking the wagons across the river. Transporter bridges are in use on the Continent. There are a couple in England.

52. Would you prefer the South Quay to be connected with the railway?—Yes, I should like to see the connection made.

53. Would you prefer it?—It would be better. It would make it a more useful quay.

Chairman.

54. Have you any suggestion about connecting up with the railway?—I never reported to my Board—the Port and Docks Board—fully on the matter, and I should prefer not to put forward a scheme now, as it would require very careful consideration. I think it could be done with the co-operation of the railway companies, but if they stood in the way you would find it very difficult to manage.

Mr. Field.

55. If the railway companies were under united management is it your opinion that it could be done without a great deal of difficulty?—Certainly; it means a good deal of money.

Mr. Lindsay.

56. It would be expensive?—Yes.
57. Would you connect with the loop line?—My own idea was to connect with the Midland Great Western Railway by a transporter bridge.

58. I am speaking of direct connection?—You would have to go round by the loop line.

59. It would be extremely expensive?—Yes, there would be expensive property to purchase.

Chairman.

60. What draft of water have you at the port?—The deepest berths are 25 feet at low water.

Mr. Lindsay.

61. At spring tide?—Yes. They are open quays. The Custom House docks have not been improved.

Chairman.

62. Who is in charge of them?—The Port Board.
63. And they have not been improved?—No. They are close to the city and, in my opinion, would be suitable for the city trade.

Mr. Field.

64. The water is too shallow there?—The docks are perfectly antiquated. They would have to be entirely recast.

Mr. Keating.

65. Do you think it would be in the interest of the country if this Sub-Committee would take the responsibility of making some suggestion to Parliament to compel the authorities of the port to improve it?

Chairman.

66. I am afraid that is hardly a question Sir John can answer. (To Witness.) Suppose, for argument's sake, that there was a port on the western coast for trans-Atlantic boats, and that the passengers were brought over to the east side by train, where would be the best train ferry site?—The site I recommended was below the Alexandra basin. At the time the All-Red Route was under consideration the engineers came to me and I told them exactly the proposition I thought most feasible. It is perfectly workable from the eastern end of the Board's property.

Mr. Field.

67. You would not advise them to go to Kingstown?—I don't think Kingstown is advisable.

68. I agree. You want plenty of room?—Yes.

Chairman.

69. If you had that, where would you send them to?—Holyhead and Rosslare.

70. Do you know Holyhead well?—I was born there.

71. Would they not require a good deal of improvement there?—They would.

72. But it could be done, you think?—I am quite convinced it could be.

Mr. Lindsay.

73. The present harbour would be perfectly useless?—Yes. The most feasible site is at Salt Island.

74. Engineers came definitely to ask your opinion about Dublin?—They came to me about the matter.

75. They saw me in Belfast and they told me that their ferries were to be 12-knot boats?—They would be no use.

76. They would if you took the northern route, as the distance is short, but if there was a 70-mile trip it would be altogether too slow?—Yes, altogether.

77. Has Dublin, as a harbour, ever received State assistance at all?—Not since the days of the Irish Parliament. Dublin would never have been a harbour but for the grants of the Irish Parliament.

78. You got nothing since the Union?—Mr. Field.] It is too national to get anything.

Colonel Geddes.

79. What prospects are there, Sir John, of developing the Port of Dublin?—My own conviction is that as a rule, if you give facilities, trade follows. I have seldom seen the reverse. A great deal of our trade that at present goes foreign, has to go across the Channel to be shipped.

80. If you had a free hand to develop the port, you would expect to develop the foreign trade?—Yes.

81. Would that be a European trade?—Yes, and overseas. We had rather a good European trade, before the war, with Rotterdam, Antwerp and Hamburg.

Mr. Lindsay.

82. Was that both inwards and outwards?—Yes.

83. You seem to have very few railway accommodations in Dublin?—The railway connections with the north side are good, not as good though as if a railway company owned the port, because the postal and railway arrangements were not made to fit things into each other originally.

84. That would apply to all big places?—The railway company owns Fleetwood and Heytham, and the railway and harbour lay-out were designed at the same time.

85. Take Liverpool?—Its railway connections with the docks are bad.

86. There is no railway company in charge of Glasgow, and it is fairly prosperous?—Yes.

87. And no railway company owns Belfast?—No.

88. If you put Dublin in the same class as big towns you will find that the places that own railways are small?—Yes.

89. You could not expect an old place like Dublin to be owned by railway companies?—I don't say that. I only want to point out that unity of policy between harbour and railway authorities is advantageous to transport.

90. Have you not the same facilities in Dublin as in corresponding ports in the United Kingdom?—I am not sure of that. I cannot speak with authority, but during my time in the port our relations with the railway companies were extremely pleasant.

91. It is in their interest?—It ought to be their interest.

Mr. Hannan.

92. The general scheme for the development of this country supposes a scheme of economic development which includes both industries and agriculture?—Yes.

93. Do you think that there is an opportunity in this country, if a generous scheme of port development is undertaken by the Government, of strengthening the economic condition of Ireland?—I do.

94. Do

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[Continued.]

Mr. Hanson—continued.

94. Do you think that there is a friendly attitude by the common carriers—the railway companies—towards the development of the ports of this country where it might mean competition against themselves?—I think I ought to say that the Irish railways have been sympathetic.

95. I notice that you prepared an admirable brochure, which you published in the March of this year, on the harbours in the West of Ireland?—It was written really with a desire to clear my own mind on two or three points on which my opinion wavered, and in that way I have consolidated my ideas.

96. What I would like to get at is this—in your judgment, if the port, no matter where, is taken as the point of development in the interests of the State on the West Coast of Ireland, would it be in the direct interest of Ireland?—It would be of the greatest interest to Ireland, and in my opinion the difficulties of transshipment would be materially reduced if we were able to develop train ferries. We have, of course, to meet the fact that you are constructing a great opposition to some of the big English ports.

97. In suggesting the development of a West of Ireland port, have you considered that suggested development in conjunction with the cross-Channel ferry?—Yes; it has always been in my mind that the train ferry should follow. Of course, a great many have gone in for tunnelling.

98. What was your idea about the gauges?—It is a difficult problem. It is a matter of very considerable dispute whether to change the bogies or to have double wheels or a third rail. The special difficulty in Ireland is the small difference between the gauges.

Mr. Lindsay.

99. Is a third rail feasible?—Yes, except at the points and crossings. However, I don't give up the problem by any means.

Mr. Hanson.

100. Have you considered the question of harbour development in connection with the inland water transport?—I was on the Royal Commission for Canals under Lord Shuttleworth, and we came to a practically unanimous report as regards the Irish waterways. The Irish waterways are in close contact with the port of Dublin, and some of the best work of the Grand Canal is done in connection with the port of Dublin. Personally I think the canals are capable of very considerable development in Ireland.

101. If you prepared a statement for us before we returned to Dublin on the question of the connection between inland navigation and the ports you would be helping us considerably?—I shall be very happy to do what I can.

Mr. Keating. We all consider, Sir John, that such a statement would be very valuable.

Mr. Field. I should like to support Mr. Hanson's suggestion.

Chairman. Sir John has agreed to do it.

Mr. Field.

102. You believe, Sir John, that if our methods of transport were improved in Ireland we would have better economic results at home, and we would benefit England as well?—Yes.

103. With regard to the railway question, of course, we cannot go into that. It is more or less a question for the engineers and the railways, but I think you ought to deal with it in the statement you are sending in?—I gather I am not to touch the railways.

104. Is it your opinion that the canals and the railways are working together at the present time for the public benefit?—I would like to answer that by saying that they ought to work together for the public benefit.

105. Is it your opinion that they are assisted as they would be if there was proper management?

Chairman. I don't know that he should answer that.

Mr. Lindsay.

106. When you were on the Royal Commission were you rather impressed by the fact that in the agricultural parts of England canals were run at a loss, if not left absolutely derelict?—Yes, there is no doubt about that.

Mr. Lindsay—continued.

107. You are dealing here very much with an agricultural country?—We are.

108. And do you think in view of your experience on the Royal Commission that you are going to make canals in agricultural countries that will pay?—I don't think it is proposed to make any, but to utilize existing ones. I think there is a very great future in Ireland for them with regard to agriculture.

109. Take the Royal Canal?—Yes. You know its history.

110. But it is in reasonable working order, Sir John?—It is, but it was built out of pure spite, in opposition to the Grand Canal, and it is owned by a railway company whose main line runs on its banks.

111. Is it one that could be used properly?—We reported specially on that, and I cannot improve on the words of the report.

112. Take another canal, the Ulster Canal, which is run at a loss?—That also is very fully reported on.

113. Generally, you think canals would pay?—The Grand Canal is paying, and could be further developed.

114. Are there many canals that would convey agricultural goods?—This month we shall be very much pressed for canal boats for this very purpose.

115. What about pre-war agriculture?—That was at a low ebb in Ireland.

116. No agricultural produce went by canal in any part of the United Kingdom before the war?—Very little.

117. Do you think the war is going to change that?—More land has gone into cultivation.

118. Would it not go by railway as before if the railways could accommodate it?—A great deal of that turned on traffic rates and the determination to start up canals by some of the railways in England.

Chairman.

119. In your powerful pamphlet, published in March last, you wrote very decidedly in favour of one port on the West Coast. Have you formed any other opinion since?—My leanings are entirely in favour of Galway Bay if the breakwaters are constructed, and they ought to be constructed. Killary is like a Norwegian fjord. It is a magnificent harbour. It is, however, away from everybody, and its entrance difficult and narrow.

120. Talking about the difference in the gauges, have you considered the advisability of having your carriages skidded by the bogies and loaded on to other boats or trucks?—They can undoubtedly be altered on the train ferry, if that is thought desirable; but I should prefer to run the English gauge carriages through without any change of the kind, and I think it could be managed.

Mr. Lindsay.

121. There is one point about the transatlantic port which has never been suggested, that if there was a port in the West of Ireland, the goods should come over the Irish lines?—Only for the express parcel traffic.

122. But the ordinary goods traffic was never suggested to be taken over the Irish lines?—The ordinary tramp steamer would continue to come in to the port to which its cargo was consigned.

Chairman.

123. Do you think that boats that run between New York and Galway should turn round at Galway and go back?—Yes, the high-speed mail boat that carried passengers and high-class goods, or what is known as express freight, would return.

124. And the high-class goods would be discharged at Galway and sent through Ireland?—Yes. If you have not to break bulk I see no reason against it.

Mr. Lindsay.

125. Do you think there would be sufficient goods to warrant the freight?—I do.

126. As far as Blackrock Bay was concerned?—All the present proposals are terminals.

127. These boats were not to deal with goods?—With parcel traffic. That is growing to an enormous extent.

128. But that is not goods traffic as we understand it. It would be purely passenger train traffic?—What

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[Continued.]

Mr. Lendary—continued.

is known as express freight forms a very valuable item as regards the American trade, I am told.
122. Not so far as the Irish-American trade is concerned—at least not before the war?—No.

Mr. Keating.

120. Do you think the cost of changing the gauge would be prohibitive from Galway or Blackhead Bay?—You mean altering the Irish into the English gauge?

121. Yes—I should be very sorry for the sake of the Irish rolling stock that it should be altered, but I do not see the difficulty of providing a third rail.

122. The cost would not be prohibitive—I don't think so.

Mr. Hanmon.

123. You would have great difficulty at stations?—The points and crossings at the stations are the difficulty.

Mr. Keating.

124. You mentioned some time ago that the deep-sea fishery trade might be developed in Ireland?—Yes.

125. Have you got any suggestions in your mind as to what the Government could do to develop that?—If this harbour is constructed for mail service or naval service the fisheries should be taken into account. A

Mr. Keating—continued.

deep-water harbour suitable for the best class of fishing steamers should be provided.

126. And that one harbour would provide for the whole of the West of Ireland?—Certainly it would.

Mr. Fidd.

127. Do you think that would meet your idea of the deep-sea fishing to concentrate it at Galway?—That is my opinion. If there was a fishing harbour it would allow industries to grow up around it.

128. Do you think dredging would clear mud?—That is in regard to small harbours. That is a subject that I have pressed very much from time to time on different Departments—the desirability of being able to maintain these small harbours around the coast. In the case of the Arklow Harbour on the east, for instance, it was constructed by the Board of Works, and has got a small harbour board of its own, but the Department of Agriculture maintains the entrance with their dredger.

129. There is only the one dredger suitable for the work?—Yes.

Chairman.

130. The Committee are very much obliged to you, Sir John, for the evidence you have given. I am sorry it has been so desultory.

Mr. P. C. COWAN, B.Sc., M.I.E.S.E., Chief Engineering Inspector to the Local Government Board for Ireland and Past-President of the Institution of Civil Engineers of Ireland, called in, and Examined.

Chairman.

141. I understand, Mr. Cowan, that you will be good enough to give us some information regarding the harbours where their maintenance is dependent upon public authorities?—Yes, Sir. As you are aware, the notice given was rather short and I do not know exactly what is the precise nature of the evidence you desire.

142. I hope you got a copy of our reference?—Yes, in a sketchy form, and as a result I am afraid I can give you only what may be called sketchy evidence, and offer to give you further evidence as soon as possible. My Board are exceedingly anxious at all times to do everything it can for the good of Ireland and now to give every assistance to your Sub-Committee. With regard to some of the matters touched by your reference the Board has exceedingly slight connections. As an official travelling over the whole of Ireland, and as an engineer, I have had during the last 20 years somewhat special opportunities of forming opinions with regard to the matters which are within your reference, and what I propose to do in a cursory manner is to open up points to you some of which you will discuss, if you don't want them, and some of which you may ask me to go into more fully afterwards. I must, on account of want of time to prepare evidence, ask your indulgence if I am prolix on some points. May I say that people are somewhat tired in Ireland of ineffective Commissions.

Mr. Fidd.] Hear hear!

[Witness.] It is widely thought that everything that needs to be known about Ireland is known, and that what is wanted is not more inquiries but more action.

Chairman.

143. We are very much obliged to you for that piece of information, but we have come to get evidence for ourselves—I follow. I merely point out that as a matter of general importance which you may desire to note. You will know me right if I wonder. I feel that any evidence that I can give will be disappointing, as it can only deal with such matters as: (1) The slight connection of the Local Government Board with the subjects with which you are dealing. (2) The nature and control of Irish harbours and ports. (3) The statutory provisions with regard to them. (4) The divided responsibility of authorities. (5) The small extent of goods traffic in Ireland, and some reasons therefor. (6) A possible test of the need for increased facilities for traffic. (7) Some comparisons of goods traffic in England, Scotland and Ireland. (8) Likely sources of information (a) in Blue Books, (b) through witnesses. (9) The principal need of Ireland now as to works is probably arterial drainage. (10) A few ideas relating to the Iveagh-Purris Scheme as to improving road transit by motor services; a note or two about a recent scheme carried on for

Chairman—continued.

some time between Dublin and Galway, but now discontinued, as it did not prove remunerative. (11) A note or two about the late Lord Kitchener's system of public cars in Co. Down. (12) A note or two regarding Lord Leominster's system of public motor cars in Donegal. (13) A suggestion that the traffic on the new railways made under the Harbour Acts might be a very interesting subject of inquiry; there is no doubt they have done immense benefit to the districts which they serve. (14) A few notes as to works worthy of special inquiry. I am here to help the Sub-Committee in any way I can as a sort of post-witness. I should like first to indicate important sources from which reliable information may be procured in connection with this investigation. In the 11th Volume, dated 1911, of the Report of the Royal Commission appointed to report on the Canals and Inland Navigation of the United Kingdom (Cd. 5628), and in the 12th Volume an appendix containing statistics, correspondence, etc. (Cd. 5663), there will be found an admirable survey, based on exhaustive evidence and personal inspection of the extent, condition, results, and possibilities of the canals and navigable waterways in Ireland. Their length is about 837 miles, of which only 95 miles—less than, say, one-eighth of the total length (the Royal Canal)—is controlled by a railway company, the Midland Great Western Railway Company of Ireland.

144. Ninety-five miles controlled by a railway company?—Yes. See, however, reference to agreement between the Great Southern and Western Railway Company and the Grand Canal Company, in paragraphs 179-181 of that Report.

Mr. Fidd.] That is what I had in my mind when I heard you mentioning the 95 miles.

[Witness.] In Great Britain about one-third of the total length of canals of about 3,800 miles is controlled by railways. In America half of the canals are derelict. The largest and the longest of the Irish waterways—the Shannon system, 165 miles—is managed by the State through the Commissioners of Public Works, but it passes through a country with an average population of 95 per square mile. It has the disadvantage that the largest locks are at the upper end of it. At the lower end the locks are small.

Chairman.

145. Do you know that those locks are capable of enlargement?—Yes. In the 12th Volume of the Report to which I have referred you will find an estimate as to the enlargement at Killoe. Up to 1892 £4,732,399 had been spent on the Irish inland waterways, about one-half of which was provided from public funds. The Grand and Royal Canals

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Mr. COWAN.

[Continued.]

Chairman—continued.

were constructed on an unskilful and very costly manner. The result, financially, has been a failure, though the figures between 1888 and 1905 showed an improvement in traffic and revenue. In 1888 the total tonnage conveyed was 865,546; in 1905, 1,069,093. In 1900 the gross receipts amounted to £68,515; in 1905, £130,538. In 1888 the net revenue was £19,295; in 1905, £28,360. The revenue of the Royal Canal dropped 25 per cent. in that period, but that of the other waterways increased by 41 per cent. The canals in Ireland carry about one-sixth of the tonnage earned by the railways.

Mr. HANSEN.

146. What is your reference for one-sixth of the tonnage?—I will give you that in a moment. I am not giving any original figures. Most of the mountains in Ireland from which minerals are obtained—e.g., iron ore, lime, clay, salt and basalt, in Co. Antrim, and granite in Co. Down—are close to the sea, and therefore do not cause any traffic on inland waterways. The very small goods traffic in Ireland is shown by the following comparative figures (1913).—In England and Wales the length of railways is 16,402 miles; in Scotland, 3,477 miles; in Ireland 3,408 miles. The traffic per mile in 1913 was—40 England and Wales: Total goods, 29,800 tons, including 23,550 tons of minerals; in Scotland, total goods, 18,700 tons, including 14,600 tons of minerals; in Ireland, total goods, 1,800 tons including 640 tons of minerals. (See Thom's Directory for statistics from which these figures are derived.) These figures show the result of the absence of large inland towns, manufacturing, and colonies on traffic in Ireland. The valuable statistical reports on Irish imports and exports prepared by the Department of Agriculture and Technical Instruction should also be referred to. The Royal Commission on Canals, in their Report dated 1911, from which most of the figures I give regarding canals are taken, do not take a hopeful view of the expediency of developing the Irish system of inland waterways, and say:—"In a word, there are in Ireland practically no inland manufacturing or large mining districts exchanging traffic with each other and with the sea ports. Such goods as there are for export, import, or internal traffic are almost entirely of the nature of live stock, butter, eggs, and other agricultural produce or light goods requiring speed in delivery." (Section 64 of Report.) Another point is that the coal deposits, while very interesting, are practically unimportant. The possibility of a greatly increased traffic on inland waterways in Ireland is remote, in the view of the Royal Commissioners (Section 225), and they state:—"It is therefore not possible to base on existing facts as in the case of England—proposals for large expenditure upon improvements of the Irish waterways." At the commencement of their Report, they say that in some cases, such as the Barrow and the lower Bann, drainage is more important than navigation, and near the end of their Report they state that drainage and navigation problems should be considered together. The Royal Commissioners observe that as regards width, use of locks and water supply, the Irish canals compare most favourably with English canals, but point out that one short canal in the North has proved a failure on account of an insufficient water supply. A lack of apparently inefficient one near Killybegs is referred to in correspondence in Vol. 12 of the Report.

Mr. LINDAY.

147. What is the canal in the North referred to?—The Ulster Canal. The Commissioners of Public Works in Ireland have the fullest information on the matters now under consideration, but doubtless that was made available to the Royal Commission. The Local Government Board for Ireland has practically no direct contact with questions relating to canals, but have certain limited functions with respect to the powers of county councils to take over canals under the Railways Act, I think, of 1838. The only proposal of that kind I know of was made about two years ago by the County Council of Meath, with respect to a somewhat derelict canal between Droghda and Navan.

148. The Boyne?—Yes; but the county council, having gone very carefully into the matter, thought

Mr. LINDAY—continued.

that the game would not be worth the candle, and decided not to go on with the acquisition of the canal. Navvy has a small harbour, approached by a canal by which vessels of several hundred tons burden pass from Carrington Lough to Navvy. The Canal Commissioners desire an improvement in the canal, but their circumstances are very straitened. They will doubtless desire to give evidence. The mercantile harbours of Limerick, Galway, Westport, Balina, and Sligo are all unsatisfactory and ill-equipped, and their condition and prospects deserve careful consideration. Some valuable information regarding their revenue and expenditure will be found in the Annual Report on Local Taxation, issued by the Local Government Board, and full information regarding their condition and cost can be furnished by the Commissioners of Public Works. Now I come to a very contentious matter. Most of the fishery ports in Ireland are of a very crude and make-shift type. Many of them were erected—there is some reason to believe—on account of a desire to give employment in their construction, or to meet the ill-informed view of local people. For instance in a county that I had charge of many years ago—South Mayo—there are three piers—Fenit, Malinbeg, and Loughery, all of which are practically useless. A really good pier is now required at Rosnare Point, Valentia Harbour, but the difficulty is its cost. About £10,000 has been proposed to be expended there; but to provide a really useful pier more than twice that amount should be provided. There is an immense traffic with fish in this harbour, which is a very fine one, close to good fishing grounds. The Congested Districts Board are taking action with respect to this pier, but the difficulty is money.

Mr. Field. That is the difficulty everywhere, as well as there.

Witness. On that point—the question of money and Irish piers—there is no doubt that Ireland has got more money to help fisheries than Scotland, but the results have not been satisfactory in Ireland. The difficulty has been trying to get £100 worth of work for a ten-pound note. First of all the Government started to provide—54 works, at a total cost of £47,228, or an average of £740 each. They next started 72 works, at a total cost of £137,010, or an average of £1,880 each. Next, 22 works, at a total cost of £50,454, or an average of £2,293 each. Next, 34 works, at a total cost of £62,611, or an average of £1,840 each. Next, 58 works, at a total cost of £23,965, or an average of £413 each. (See evidence of General Sarsley, R.E., before the Allport Commission.) That was simply playing with the subject, and the result is that many of the fishing harbours around Ireland are almost useless. If the money had been spent at a very much smaller number of places, more service would have been done to the country. There is a very important point that I desire to mention. At present several important Government Departments in Ireland appear to have parallel, and to some extent overlapping, powers and duties in respect to marine works—the Commissioners of Public Works, the Department of Agriculture and Technical Instruction (Fisheries Branch), and the Congested Districts Board. There is no apparent good reason for such division of responsibility, and a consolidation in this respect appears to be very desirable.

Chairman.

149. Has any effort been made to get that consolidated?—Yes, some. On the point I have been dealing with, I wish to draw your attention to an official paper that came to me this morning. It is the minutes of the Kerry County Council, which, at its meeting on the 24th August last, passed the following resolution:—"New pier at Rosnare—Resolved, that we approve of the plan submitted by the Congested Districts Board, as we consider the plan submitted by the Board of Works unsuitable for local requirements." Here you have two Government Departments, in a sense, competing for the approval of the county council.

Mr. Hansen. That is not peculiar to Ireland at all. You will find in England Departments colliding with each other.

Mr. LINDAY.

150. Where is Rosnare?—In Valentia Harbour. It is just along the south coast of Ireland from the most

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[Continued.]

Mr. Lindsay—continued

most westerly point, you find a number of piers in the domain of the Congested Districts Board. Then you come to Kinsale, and you find it is the Department of Agriculture that deals with improvements at the harbour. Further east, at Dunmore, the Commissioners of Public Works are in charge. As a result, none of the Departments can afford to do marine work really well, or to maintain a sufficient engineering staff. Such division of responsibility cannot possibly give satisfactory results.

151. Is the Board of Works part of the Local Government Board?—No, it is not. The Board of Works have a great many functions, including the name of loans. They had enormous powers and duties many years ago, but some of them have been transferred to the Department of Agriculture and the Fisheries Commissioners, and so on. What point, Mr. Chairman, would you like me to say anything more about?

Chairman.

152. How many of the harbours in Ireland would you consider self-supporting?—I do not know any of them that are self-supporting or flourishing, except those of Dublin, Belfast, Cork, Londonderry, Limerick, and Waterford. You will find information on that point in the Report of my Board on local taxation, which I have handed in.

153. What about Kingstown?—That is a Government Harbour. You will find all information as to revenue and expenditure in detail in the report I refer to.

154. The £7,000 that Kingstown gets; how is that given to her?—The Board of Works will tell you all about that. Later on, if you so desire, I can give you information regarding Road Board grants to Ireland. My difficulty is to see for what purpose Ireland wants more transport facilities than she already possesses. What is she going to do with them? The railways of Ireland are underworked. They could carry ten times as much traffic as they do. The rates they charge do not seem to be excessive, because the railways do not pay very high dividends, and it appears to me that a lot of people are wrongly under the impression that you will get business started if you put down a few more lines of railways. I have a book here—Vol. 5 of the Proceedings of the Institution of Civil Engineers of Ireland—containing the early history of all the important engineering works in Ireland. It is given in a very lengthy address by the president, who points out that it is a great mistake, notably exemplified in some of the great development undertakings in Ireland, to provide facilities ahead of business. After careful consideration, I would suggest that the need of improved transport facilities may be tested by inquiring whether or not throughout the country there are marked inequalities in the prices of the produce of the country. If you find eggs very cheap in one part, and very dear in another, there is a need for increased transport facilities. If grain is cheap in the west and very dear elsewhere, there is a need for increased transport facilities. The fact, however, is that the present facilities appear to have equalised the price of commodities wonderfully. That equalisation has been effected by a good many causes, the last, but not the least, being the Ford motor-car, which is greatly used in Ireland. It has done more to equalise prices of light farm produce throughout Ireland than anything else, and has largely solved the difficulties of the Inagh-Ferris Commission. Their difficulties were the low speed limit on motors at the time of their investigation, the weakness of the roads, and the great weight of motor-cars then available. These difficulties have been largely overcome since. You can now travel up to twenty miles an hour in a motor-car without breaking the law, and the roads have been very much improved. There is little necessity for big cars, carrying five to six tons, for the rural districts in Ireland. I think that a Ford van, which is very light on the roads, and which carries 15 to 20 cwt., is very suitable, and solves the transport of small parcels of goods in Ireland. From Tullamore and some other large towns, shopkeepers now distribute their goods by road over wide areas.

Mr. HANSEN.

155. By motor transport?—Yes. Mr. Henry Macleod, of Kilsheel, has much experience of road transport in

Mr. Hansen—continued.

County Down. Mr. Martin McDonough, Galway, would be a most valuable witness on transit. If we had plenty of men like him in the country there would be little need for Government intervention in such matters. For the South you should consult Mr. Richard H. Beattie, of Cork. In the North you should see Mr. Hugh T. Barry, M.P. In Belfast you will be able to consult Mr. Pollock, the Chairman of the Harbour Commissioners. Perhaps I have now taken up as much time as you can give me. I would like to mention one or two Blue Books, if I may. I think you ought to read carefully Lord Macdonnell's Minority Report in the Final Report of the Royal Commission on Congestion in Ireland, dated 1906 (Cd. 4907).

Mr. Lindsay.

156. What it is about?—It is the Royal Commission presided over by Lord Dudley, on Congestion in Ireland. You are doubtless acquainted with the Report of the Arterial Drainage Commission, and also the Second Report, dated 1893, of the Royal Commission on Public Works, of which Sir James Alcock was Chairman. That second report refers mainly to ports, and it contains a most valuable map of all the ports in Ireland.

Chairman.

157. Were the recommendations carried out?—Some of them were carried out. For instance, the railways to Achill and to Valentia. At Kinsale the railway is some hundreds of feet above the harbour. Money might be very well spent to bring the railway down to the harbour. I have here a somewhat private report on the condition of the piers and harbours around the coast in 1902, which I will hand in. I also hand in a copy of Vol. 6 of the Proceedings of the Institution of Civil Engineers of Ireland, containing a history of Engineering in Ireland up to 1899, to which I have already referred. It is a most interesting book, containing two Presidential addresses, one of which took the author (Mr. Mallin) three nights to deliver.

Mr. Field (He should have been in the House of Commons), he would have kept the House for the Government whenever they wanted it.

Mr. Hansen.

158. Can we see something of the Inagh-Ferris Report?—It was a private Report. There is not very much in it, except what I have told you—that it was desirable to have improved means of transport throughout the country, that their difficulty was that the motors were too heavy for some of the roads, and that the speed allowed by the Act of Parliament was too low. The view I put before you is that the roads had been improved since, that the speed limit has been raised, and that the problem has been practically solved by the Ford car. I think the effect of the Kerry Railways might be investigated in detail. They have conferred immense benefits, but the Kerry people grumble at the slight cost that falls on them under guarantees as to interest on part of the capital cost. They forget the benefits.

Chairman.

159. Are the railways standard gauge?—Yes, the ordinary gauge. In Limerick valuable evidence regarding motor traffic on roads could be got from a representative of Messrs. Cleaves, who carry on a large amount of mechanical traffic on roads in connection with their very important business.

Mr. Hansen.

160. These are the dairyming people?—Yes. You ought also call a representative of the bacon factories. Road transport is largely developed around Limerick.

Mr. Lindsay.

161. With regard to flooding, what action does the Local Government Board take in reference to it? Do you get complaints from areas that have been flooded?—We have complaints of a certain kind of flooding, but not of flooding in the country districts.

162. If there was flooding in the lower district, would you not get a report or complaint?—No.

163. What Department would?—The Board of Works. There were fairly good statutory provisions

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[Continued.]

Mr. Lindsay—continued.

with regard to arterial drainage in Ireland until the Land Act radically changed the mode of tenure of land. Formerly a few landlords controlled a large area, and you could arrange with them as to general improvements on a large scale; but now that is absolutely impossible, and, in my opinion, the most important matter in Ireland requiring improvement is the procedure for schemes of arterial drainage.

Mr. HANNAH.

154 You would require new legislation for the purpose?—Yes, of course.

Mr. FIELD.

155 You said that there were almost sufficient transport facilities in Ireland at present. Is it your opinion that the coal and other mines have been developed in Ireland? They have been developed quite as fully as their business value warranted. Of course, now that we have war conditions, it is probably wise to give them special assistance in development.

156 Do you not think that there is plenty of room for timber and stone and measure to go by canal?—There is nothing to hinder them going.

157 The railways would let them be used?—There are tribunals before whom complaints can be made about rates.

158 The tribunals connected with Irish Boards do not always give satisfaction. You said something about the Newry Canal?—Yes.

Mr. ROBERT WORMMUNSTER, called in, and Examined.

Chairman.

175 I think, Mr. Worthington, you are prepared to give us some evidence in connection with Galway as a transatlantic port?—Yes, Sir.

176 We hope to visit Galway, and after we have done it we would like to get a good deal more information from you than we can take now. We have all read your books, I think. Are there any particular points on which you would like to give us information?—I do not know that there are any further points that I can give you information upon now.

Mr. HANNAH.

175 Your main suggestion is that Galway should be a transatlantic port?—Yes. Galway should have it, because it is the capital of the West of Ireland; it is close to a main line railway; it is the finest bay in the west; it is the easiest to approach; the Report of the Royal Commission of 1884 was very emphatic that Galway Bay was the best site for a transatlantic harbour in Ireland; and it is undoubtedly the best harbour in the West of Ireland for a transatlantic

Mr. LINDSEY.

176 What was the Commission to which you refer?—It is referred to in the pamphlet I sent you.

Mr. FIELD.

177 Can you tell us how the Blackhead Bay promoters got their Bill in Parliament and you never did?—They promoted their Bill some years before I brought forward my Bill, in 1913, in connection with Galway. I got the Bill so far as the Standing Orders Committee, but I had to withdraw it in consequence of declaration of war, the Bill being lodged in Session 1913-1914.

178 How did the Blackhead Bay promoters manage to get their Bill through?—They got it previous to my Bill being lodged.

Mr. LINDSEY: Yes, it was previous to 1913.

Chairman.

179 We are going to the west, and hope to see the ports. We are entirely unprejudiced, and only want to find out the best. After we come back, if there are any points on which we think you can assist us, we will ask you to kindly come before us again?—Do you wish me to attend at Galway?

180 If you are down there we shall be glad to see you; but I do not think it would be necessary for you to go there specially.

Mr. FIELD—continued.

159 I have received three communications about that?—I think it is a very important canal, and it would be well if something could be done in connection with it. Lately they have been trying to stop the leakage in the canal.

170 About Valentia, you heard a former witness saying that money was going to be laid out on Valentia, such an amount of money as is apparently at the disposal of the Development Commissioners?—I think Mr. Ennis was good enough to give the figure of £7,500 as being available. That is only about one-third of what is wanted for a really satisfactory job. Instead of scattering scattered money in small sums, and doing little or no good, it would be better to allocate it to a few places where substantial benefits can be secured.

171 You are decidedly of opinion that the Board of Works and the Congested Districts Board should have unified control?—There are three Irish Government Departments at present dealing with the construction of piers and harbours, and in some way I would try to find out which would do the work best, and give that body control. On that matter you will find some valuable information in the Act of Parliament which established the Department of Agriculture and Technical Instruction for Ireland.

Chairman.

172 I think you very much for your evidence, which has been very comprehensive?—I am at your service at any time.

Mr. FIELD.

181 I think he ought to make arrangements with the Galway people to show us around the place?—Yes; I wish to do so. We are under the impression that a really good transatlantic port in the West of Ireland would be an enormous benefit to the entire country. Galway, we maintain, is the most suitable place for that port. If we have a ton of goods in Galway, we have to send them to Liverpool in order to get them to Canada or America. That is a very great grievance. A good transatlantic port at Galway would transform the whole of Ireland. It would, in fact, bring the population of Canada and of America through Ireland. We have now been agitating for that port for fifty-nine years.

Mr. LINDSEY.

182 It was used for a time?—Yes. What year was that?—1865. Was the Midland Great Western Railway through to Galway at that time?—Yes.

Mr. FIELD.

183 Are you prepared to give us any idea as to whether the Galway people and the Midland Great Western Railway Co. are in a position to give financial support to a project of this kind, or what amount of co-operation they will give in regard to it?—We look upon this as a national scheme, worthy the support of the Government in Imperial interests.

184 We think we are entitled to get information to support a scheme of that kind?—We have given information several times in regard to it. The port is not in the interest of any particular part of Ireland, but of the entire country.

185 Would not Galway be benefited by it to a certain extent?—Yes. The feeling of the country in favour of the port being at Galway is evidenced by the resolutions passed by public bodies throughout the country.

Mr. HANNAH.

186 Your suggestion is that it should be a national project, without any local contribution at all?—Yes. The whole country has an interest in it. You have quite as much interest in it, imperially, as we in Galway have. If the Bill that I promoted first in 1913 had passed, the carrying through of the Galway scheme would have made a great difference in furthering the object of the war.

187 We have advanced a good deal since 1913 in this country. There has been a changed attitude of mind towards problems of this kind?—That is so.

188 Perhaps

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Mr. WORTHINGTON.

[Continued.]

Mr. Hanson—continued.

186 Perhaps you would tell us in general terms what are the imperial and national points of view you had in mind, and what is the meaning of this project as a whole?—I had the idea, when promoting it in 1911, to connect Canada and America with our country. I interviewed many prominent people in Canada in reference to it—Prime Ministers and different Ministers, and other public men—and I did not meet a single person in Canada that was not in favour of the project. None of the ministers there had the slightest doubt as to the value of the connection between Canada, America, and Ireland. The Prime Minister of Newfoundland agreed to give me a subsidy.

Mr. Lindsay.

189 Did he mention the amount?—No. Mr. Borden, Prime Minister of Canada, asked me, when I saw him in Ottawa, what the British Government were going to do in connection with the scheme. I told him I had not yet approached the Government. "Go back," he said, "and make arrangements and tell us what they are going to do. I have no doubt Canada will subsidize this as well as Newfoundland."

190 You knew that the Imperial Conference at two successive meetings made a pronouncement in favour of such a scheme for a route?—Yes. The whole city of Boston is united in favour of a connection with the West of Ireland. All of them favour Galway. They are all anxious for a connection with the West of Ireland.

Mr. Lindsay.

191 Did not the Blackhead Bay people get ahead of you by promoting a Bill to make a line of railway without a subsidy of any kind?—No, Sir; they never made or commenced any railway or works.

192 Are they asking for a subsidy from the Imperial Treasury?—I do not know. Blackhead Bay has eighty miles of railway to make, as against only three required in the case of Galway. Eighty miles of railway represents something like a million of money. We do not want money spent on railways, but on harbours. It is the harbour that is the vital question with us. We have no transatlantic harbours—no direct route to Canada or America.

193 These people in connection with the Blackhead Bay scheme were going to build eighty miles of railway, and they have not asked for a subsidy, and you are going to build three miles, and you want a subsidy?—They did not build the railway. Our project is a harbour, not a railway, except three miles.

194 But they promoted a Bill?—Yes; but they have not got any further, and their Bill is many years in existence.

195 They have not asked for any money. You are asking for it?—Yes.

Mr. Field.

196 You asked for it always?—Yes, for Galway. Three miles would join up Banna, where it is proposed to have the port, to the main line of railway at Galway. Three miles connects the port with the main line.

Mr. Hanson.

197 There is a Spaldal project also?—Is there?

198 Your scheme is Banna?—Yes.

Mr. Field.

199 The Midland Great Western Railway are prepared to meet us in giving facilities?—Yes, the shareholders are unanimously in favour.

200 They are in favour of your scheme?—They are. There is no one in Ireland not in favour of this scheme, except, naturally, the gentlemen who are promoting the Blackhead Bay scheme, but we don't look on that as a serious proposition. In the first instance, the building of the 80 miles of railway would always handicap that project. The goods delivered at Banna if the Galway scheme was carried through would be practically delivered into trucks, or granaries or stores constructed on the pier, in the usual way.

Chairman.

201 What is your view in connection with the big transatlantic steamers—are they to end their voyage at Galway, or go on to a British port and deliver

(Chairman—continued.)

their dead weight?—We think when a proper harbour is built in Galway Bay at Banna that there should be a through service exclusively between Canada and Galway, as well as the calling of Atlantic liners.

202 Take the case of these big steamers that carry a lot of grain. What are you going to do with that when you get it here?—Store it in granaries on the pier.

203 Is that traffic for England?—Not necessarily principally for Ireland. My original idea was the trans-Isle, but I don't think that we would be able to deal with traffic of that kind until later. Such English traffic in large bulk would go direct.

Mr. Hanson.

204 I am sure you would not. I don't think you ever contemplated Galway in connection with the trans-Isle ferry other than as a terminal port?—That is so.

Mr. Lindsay.

205 The trans-Isle ferry the All Red Route were going to employ was going between Scotland and Ireland. It was going to be an 18-mile run. You could not get from Galway?—Galway is nearer to Belfast than Blackhead Bay is. The actual figures are: Blackhead to Belfast 216 miles, Galway to Belfast 194.

206 What route do you take?—Via Mullingar and Cavan.

207 It does not look nearer on the map?—We are between 20 and 30 miles nearer. Galway is the most central place for all Ireland.

Chairman.

208 If you had three steamers running to Galway, what sort of export cargo would you get?—The entire export cargo of Ireland and the traffic between Canada and America to Ireland, every pound of it.

Mr. Hanson.

209 But what Irish traffic would be available if it was a terminal port?—Take two items, Guinness' porter and the linen trade of the North.

Mr. Lindsay.

210 The linen traffic would not go to Galway. It is far cheaper to send it to Liverpool. There is no chance of tapping the linen trade in the North of Ireland. No railway could carry the North of Ireland exports at the same rate as steamers to Liverpool or Glasgow. What goods do you say are likely to send from Galway to the States?—The general goods of the country.

Mr. Hanson.

211 There is an immense fish-curing industry in the West of Ireland. We want to develop it?—Yes.

Mr. Lindsay.

212 I don't see, Mr. Worthington, what you would export to New York or Boston?—We have no transatlantic port for America or Canada. We think that is a national work, and we think the Government ought to assist us to construct that port. Many of us look on the agitation in the country as a consequence of the development of Ireland not being encouraged, and I think there is a good deal in it.

213 When the big liners called at Queenstown, how many people got off there—very few?—I think I heard, at the time the Galway Packet Company was running, in 1880, they took the entire passenger traffic of the Canada Company from Galway.

214 One of the arguments was that few passengers got off or embarked in Ireland, outward or homeward?—In Canada they told me that, in consequence of the short sea passage between Halifax and Galway, the entire passenger traffic would go that way.

215 When there was a really good port in Queenstown, and great big liners called, there was no passenger traffic to speak of?—The port was not in the proper place. At Galway it would be different.

216 It is hardly any farther from Dublin than Galway is a port.

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Mr. WORTHINGTON.

[Continued]

Mr. Lindsay—continued.

217. The Belfast people never got off at Queenstown; they always went to Liverpool?—The evidence in America given to me was that the entire passenger traffic would go to Galway in consequence of short sea passage. They were quite emphatic about that, and a good many people in America were of the same opinion. It is a short sea passage they want. It would enormously increase the tourist traffic to Ireland. In fact, the bringing closer together the two countries of America and Canada and Ireland would reform the entire country. It would bring us in contact with an energetic, hard-headed, practical people.

Mr. Hanson.

218. Many of whom would travel through Ireland to England?—Yes.

Mr. WILLIAM E. HICKS, Congested Districts Board, called in; and Examined.

Chairman.

219. You represent the Congested Districts Board, Mr. Hicks?—Yes. I sent you in a memorandum of the evidence which I propose to give. There are two returns of the number of works constructed by the Board since they started up to the present time. The coast-line of the Congested Districts extends from Lough Foyle westwards along the entire western and south-western coast of Ireland to and including Glenties Harbour in the County Cork, and the maritime coasts of the Counties Donegal, Leitrim, Sligo, Mayo, Galway, Clare, Kerry, and West Cork are comprised.

Mr. Lindsay.

221. Where is Glenties?—About 30 miles to the east of Cape Clear. The maritime engineering works of the Congested Districts Board are adapted for three classes of vessels and boats: 1. Vessels, such as steam, motor, and sailing vessels, that have to be off-set during the fishing seasons, except when alongside a sheltered pier at low water; and such works are also used for ordinary trade. 2. Open boats of various sizes built of wood, and light enough to be drawn up on a boat slip into a place of safety. 3. Curraghs (canoes), being open boats with a light frame covered with tarred canvas. For marine works suitable to the first kind of vessels the main, speaking generally, is to construct a pier having at least six feet of water at low water ordinary spring tides, the extent of the berthing being in accordance with the number of fishing vessels, either at the time or according to reasonable expectation. In one instance (Killybegs, Co. Donegal) a timber pier was built with green heart piles and a pitch-pine deck. In other cases the piers were of concrete with rubble filling. The kind of structure for open wooden boats is generally a breakwater with a slipway on the sheltered side of the breakwater. In some exposed situations the slipway and the breakwater have been separated, as, unless a breakwater is very high the sea breaks over it, and any swamp a boat going alongside. Recently the breakwater has been constructed at such a short distance from the slipways as to ensure comparatively calm water at the landing-place. Landing-places for sail rigs are generally breakwaters with a slip, or preferably, if possible, for economy a beach-clearance of rocks or boulders. Such craft as curraghs require an absolutely smooth surface for landing at, as any projecting rock or boulder would tear the canvas covering.

Colonel Giffen.

222. Has the construction of the piers proved satisfactory?—We have had no collapse except one.

223. They have stood it pretty well?—Yes.

Chairman.

224. Has any effort been made to combine inshore with deep-sea fishing boats at this place?—The inshore boats are open boats, and cannot go far out to sea.

225. I have been told that there are certain harbours that are made solely for the inshore boats, and that the deep-sea boats cannot come in, and that no arrangements were made when these harbours were being built?—I do not think that is so. The works that we

Mr. Hanson—continued.

Chairman] We are very much obliged to you for the evidence you have given, and later on, after we have seen Galway, we may ask you to come before us again.

Mr. Field.

219. Your point, Mr. Worthington, is that the construction of this port at Galway is not so much a local as a national and Imperial question?—Yes. If we in Galway are left to build it, it will never be built at all. It is an Imperial question, we say, and the Government ought to deal with it in regard to improving the prospects of this country and expediting their own mail services, so important to England, Ireland, and the Colonies.

Chairman—continued.

do for small open boats are in places where there would be no shelter for big boats to 226: The big boat could not be beside the slip that shelters a small boat.

Mr. Lindsay.

226. Have you not got any type of motor boat that draws more than six feet?—Yes. There is a large fleet.

227. That six feet of water is at low spring tide, and these are the ordinary motor type of boat?—The kind we build vary from 60 to 80 feet.

228. That would draw more than six feet?—We build them so as not to need much more water.

229. They are good sea boats?—Yes.

Mr. Field.

230. Are they competent to carry on big deep-sea fishing of which Sir John Griffith spoke, similar to the Grimsby boats?—Not at all competent to do fishing from Grimsby.

231. Then we should take it from you that these harbours are not suitable for these deep-sea boats. You have hardly any deep-sea boats in Ireland?—There are no boats that go out for more than a night.

232. They are not of the same type as the Grimsby boats?—No.

Mr. Lindsay.

233. What power do you put into the 50-foot boat?—Up to 70 horse-power, according to the boat. They are paraffin motors. We will not sanction petrol at all in the boats. It is not safe.

234. You sell to the men on the hire purchase system?—They agree to buy for a certain sum, and they come to us and give us personal security, and also a mortgage on the boat. Since the war began we require them to pay down a proportion of cash.

235. Did you not before?—No.

236. Before the war they paid nothing in cash?—No, they did not. They paid off one-fifth each year.

237. What interest do you charge them?—25 per cent. For loans out of the Fishery Loans Fund the interest is only 25 per cent. These are two photographs of the Killybegs pier.

Chairman.

238. In connection with these piers, what arrangements are made to enable the fishermen to handle the fish when they land?—The most recent pier constructed is at Ballymore, Co. Cork, and there the mile was extended and run on to the pier. The fish are used.

239. Where does the ice come from?—Dublin, Belfast, and Cork. There is no cold storage at any of the fishing ports.

240. Do you think that it would increase the number of persons fishing if there was cold storage?—I think nearly all the men that would fish are fishing. I do not believe the number is capable of much extension except strangers come. In peace time we should have boats from the other side. The Cornish boats come to the south, and the Scottish boats to the north.

Mr. Lindsay.

241. The absence of an ice-making plant is awkward?—Yes. We made an effort to procure plant, with the assistance

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Mr. MICKS.

[Continued.]

Mr. Lindsay—continued.

assistance of the late Lord Rhonda, the Food Controller, who offered as a sum of money, but we could not procure the machinery.

Mr. Keating.

242 Why could you not get the machinery?—Machinery was being supplied to the ships, and important food-storing centres, and at the time we could not get an immediate priority certificate.

243 You were refused by the Parliamentary Committee?—At first; and afterwards we could not get it down in time. A period list of works constructed by the Congested Districts Board up to the 31st March, 1908, is headed in, also a typed list of works undertaken between that date and the present time. These works, as a rule, have been handed over to the respective county councils concerned, for management and maintenance. In most cases the Congested Districts Board paid the entire cost of the work, but in some cases (especially when the culley was heavy) the works were done by the Congested Districts Board in conjunction with a county council, a railway company, the Department of Agriculture, the Board of Works, Harbour Commissioners, or the Development Commissioners. In addition to the works mentioned in the two lists handed in, the Congested Districts Board had, immediately before the outbreak of war, arranged with the Development Commissioners, the Cork County Council, and the Cork, Brandon and South Coast Railway Company, for the construction of a deep-water pier at Baltimore, Co. Cork, with a railway extension on to the pier. This work was started without any unnecessary delay, and, as the work was considerably advanced before the suspension of work was decided upon after the declaration of war, the operations were continued, and the work duly completed. As a result, very large quantities of fish were despatched to the English markets by the Cork, Rosslare, and Fishguard route. This work was carried out by the Cork County Council under the Grand Jury Acts. The pier may be useful for ordinary trading purposes after the war. At the same time, just before war was declared, similar arrangements were made as regards some other important and costly works, especially at Buncrana, Rathmullen, and Booterstown, Co. Donegal. These works were to be carried out under the Sea Fisheries Acts, but unfortunately the preliminaries were not sufficiently advanced before the suspension of work as a war measure was decided upon, and the works were not started by the Irish Board of Works, which is the executive body under the Sea Fisheries Acts. The carrying out of the works at Buncrana and Rathmullen is most desirable; but as Lough Swilly, where these ports are, is a naval base, the matter is in the discretion of the Admiralty. There is not any objection to carrying out the proposed most useful work at Booterstown, except the general suspension of such operations owing to the war. After the outbreak of war the Development Commission and the Treasury sponsored of harbour improvements at Dingle, with some consequential sanitary expenditure for the purposes of fish-curing; but, subsequently, owing to the increased stringency of financial conditions, the execution of the works was postponed, as the Treasury could not sanction the issue of the loans for sanitary purposes. The proposed work would be of very great advantage to the fishermen and fish merchants of Dingle and the neighbouring district, and, at the same time, it would facilitate the sending of fish to English markets. The remaining case, in which the Congested Districts Board have urged the starting of work immediately, is that of Rosnare Point, Valentia Harbour, where work similar to the operations at Baltimore, Co. Cork, already referred to, has been recommended, and to a certain extent agreed to by the Development Commissioners, the Kerry County Council, and the Congested Districts Board. A difficulty has, however, arisen, owing to the fact that the Irish Railways are controlled by the Government. If the Irish Sub-Committee now inquiring into harbour and pier accommodation could in any way help in the immediate starting of the proposed pier and wharf accommodations at Rosnare Point, no more useful service could be done. In a somewhat less degree, the same observation applies to the approved works at Booterstown and Dingle. The Harbour Commissioners

Mr. Keating—continued.

of Sligo, Galway, Westport, and Dingle have out of their slender means, and with the assistance of advances from public funds, done much for the improvement of the harbours respectively in their charge, but further assistance is urgently needed by the Harbour Commissioners. The town of Belmullet, Co. Mayo, with the locality about it, is the most backward district in Ireland, being over forty miles from the railway at Ballina, and about thirty from Mallanmore. The Congested Districts Board pay a subsidy to a Sligo steamer for a service for goods and cattle, but better means of communication are urgently needed for this district. This is a map of the Baltimore pier (standing as usual).

Chairman.

244 Was that pier constructed at a cost of £10,000?—Yes; it cost a little more.

245 You got a development grant there?—£7,500. The railway company subscribed, and the county council and the Congested Districts Board. We wanted a similar arrangement made at Rosnare, Valentia.

Mr. Hanson.

246 An application was made to the Development Commissioners for a grant?—Yes.

247 £6,750?—Yes.

Chairman.] There are some points we want to get from Mr. Micks in connection with the railway system.

Mr. Lindsay.

248 You know there used to be complaints made regarding the communication on the Lough Swilly line across to England—there were all kinds of news?—Yes. There is trouble still. Within the last few months Mr. Barges was able to get some improvement, but it is very difficult to get fish traffic there properly dealt with.

249 I know there had been complaints. That traffic was very large?—Yes.

250 And it was rather important it should not be delayed?—Yes. The greater quantity of fish landed in Donegal cannot be sent by rail.

Mr. Field.

251 The greater part of the fish cannot be sent by rail from Donegal. Why?—Because there is not a railway to Downings, Kinsaleagh, and Teelin. The railway was made too far away from the port.

252 How far from the port?—Eleven miles from Downings.

253 Could that eleven miles be managed by motor?—The road is not suitable at present.

Mr. Lindsay.

254 Killbegg is all right?—Yes; but there is not such good fishing there.

255 There is no sailing done there?—No. The only place in the congested districts where that is done is Dingle.

256 Why?—They used to get high prices for cured herrings and mackerel in New York, Hamburg, and Petrograd. It is an American who has the sailing at Dingle.

Mr. Hanson.

257 What is the definite proposition in connection with Valentia that we could make a recommendation on—a further grant?—It has not come to that yet; but I think it will have to come to that, but we would want improved facilities.

Mr. Field.

258 Could not the Valentia people meet us at Tralee?

Mr. Hanson.] I think we can get all the essential facts from Mr. Micks himself.

Witness.] The county council in Kerry are most anxious as regard Valentia, and subscribed to the limit of their power. We want improved facilities for getting fish away from Valentia. I have the plan here. We want the Great Southern and Western Railway Company to help. They proposed to spend £15,000 themselves some years ago. In regard to Sligo, Galway, Westport and Dingle, further assistance is needed. In Galway the boats have no docks that they can come into. You will see there a dock without gates.

259. Whose

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Mr. MICKS.

[Continued.]

Colonel Gifford

252. Whose fault is that?—Want of money, I suppose.

Mr. Lindsay.

253. Is there a Port Authority?—Yes, Harbour Commissioners. They spent all they could.

254. This was intended as a graving dock?—It used to be a good tidal dock.

Mr. Field.

255. The gates of that dock were broken when I was in Galway?—There are no gates at all now.

256. If the gates were properly made, that place would suit for fishing boats?—Yes; that could be made to suit fishing boats.

Mr. Lindsay.

257. Is there rail communication?—Yes, alongside. They spent a great deal of money in Sligo, but still they want more done. I know that Sligo, Galway, Westport, and Dingle are at the end of their means.

Mr. Field.

258. Sligo was formerly very important for the shipment of cattle?—Yes. Some of the ships have been sunk.

259. Sligo has fallen very much from what it used to be?—It has, since war broke out.

Mr. Lindsay.

260. You say that some difficulties have arisen at Burtport—is the railway communication bad?—It is all right there.

261. You said "the same observation applied to the approved works at Burtport and Dingle." I thought you were suggesting difficulties about the railway?—No. These two proposals were approved by the Development Commissioners, and I do not see why they should not go on now.

262. The railway is alongside that?—Yes. We subsidise a steamer for Sligo now. It is more than we can continue to do. It was started under the Railway Act of 1895. There was a section authorising the Board of Works to run these lines, and as soon as they spent the £50,000 voted by Parliament they said they would spend no more, and the Treasury did not go to Parliament any more, so we, to prevent the service falling through, gave an annual subsidy. The Act is still in force, and a vote can still be submitted to Parliament. The original grant was given because the railway was not constructed to Belmullet. It was given as a sort of consolation stake.

270. It was not confined to the Sligo and Belmullet service?—No.

271. It was not given as a consolation in connection with the Shannon service?—It was not.

Mr. Field.

272. The Board of Works have shifted on the responsibility to you in connection with the maintenance of the Sligo service?—It is the Treasury.

273. The Board of Works is a portion of the Treasury?—Yes.

Chairman.

274. This is a subsidy that comes out of public funds. Is there any means by which the running of the steamer could be made self-supporting?—No.

Mr. Field.

275. Could you suggest any way which would make it self-supporting?—I don't think you can hope to make it self-supporting.

276. The steamer runs once a week?—Yes, or oftener if required. We have another steamer service to the Aran Islands, and we never dream of that being self-supporting. The population is not large enough. The Post Office gave a very poor subsidy.

The Right Hon. Lord MONTAGUE, K.P., Chairman of Harbour Trustees, Foyes, Co. Limerick, called in; and Examined.

Chairman.

296. We intend to visit Foyes, and would be glad if you could give us some information about it?—Yes, I shall be glad to do so. I have arranged my evidence succinctly.

Mr. Lindsay.

277. Why did you not decline to carry the mail?—They tried first to run the mails as the personal luggage of a man who went on board. That was stopped.

Mr. Hanson.

278. I think some of the members of our Committee are familiar with your views on Irish economic development. Would you tell us how far you think the development of harbours—that is, the creation of greater facilities and more accommodation for shipping—would affect the economic development of the country as a whole? Would it be an important feature, in your view?—Yes.

279. Do you think also the development of harbours would encourage within the country greater production effort, so that they would react on each other?—Whenever you have harbours started that is obvious. Goods come in that never reached the district before.

280. In the Report that you submitted to the Government in 1907 you made a recommendation on canals?—No, I don't think so.

281. Have you any suggestion as to inland water development?—It was not touched by us in the West at all.

282. Your Report was a general one referring to the whole country?—Yes.

Mr. Lindsay.

283. Is not there a little traffic on Lough Corrib?—There is no traffic on it.

284. There was some time ago, up to two or three times a week?—Not on the canal, but on Lough Corrib. The boat is getting repaired.

Mr. Field.

285. A pleasure steamer?—No, she carries a good deal of goods.

286. Your evidence is that these harbours, especially in the West, went looking after?—Yes. If money is not spent on them, for fishing they cannot be as successful as they ought to be.

287. And at present you have practically no deep sea fishing on the west coast of Ireland?—Yes. I don't like accommodation for that class of boat. I don't think I want them particularly.

Mr. Hanson.

288. You don't think there will be increased catches with increased accommodation?—I do. Strange boats will come, and more fish will be landed.

Colonel Gifford.

289. Is not a large portion used to increase the food supply?—Nearly all goes to England. The greater quantity of herrings and mackerel were cured before the war.

290. There should be no complaints about the railway itself?—There are always complaints by people.

291. Do the railways do fairly well, on the whole?—I think so.

292. What became of the cured fish before the war?—It went to the United States, Hamburg, and Petrograd. We tried to get the people here to eat fish. We found good demands for it on Fridays and fast days.

Mr. Hanson.

293. Is there any part of the area under your jurisdiction that you think could be definitely improved if canal facilities were provided—greater transport facilities by the inland waters?—I really could not answer that.

294. Will you kindly give it a thought, and let us know?—With pleasure.

295. With regard to the congested part of Leitrim that touches Antrim we may perhaps ask you a question when we have got the evidence about Antrim?—I shall be glad to give any information I can.

Chairman—continued.

General Considerations.—I understand that the terms of reference of the Sub-Committee are wide, embracing the development both of Irish harbours and of inland navigation. The former might include four classes

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[Continued.]

Chairman—continued.

classes, of different size and importance (1) Fishery Harbours, (2) Commercial Harbours, (3) Mail and Passenger Harbours, and (4) Naval Bases and Strategic Harbours. The first may be described as of local importance, the second as of other local or possibly of national importance, while the third may be considered fairly, and the fourth certainly, to be of imperial importance. The first have been frequently the subject of public inquiry, notably by the Allport Commission on Irish Public Works in their second Report of 1888. The second have usually been dealt with by Private Bill. The third have been inquired into by Special Commissions and Commissions at various times, particularly the Commons Committee of 1882 on Western Harbours (Ireland). The fourth have never, I believe, been publicly investigated at all. The Irish system of inland navigation has been reported on in recent years in connection with the cognate question of arterial drainage by Lord Monck's Commission of 1880 and by the Allport Commission in their first Report. It was also investigated by Lord Shackleton's Canal Commission. The subject is undoubtedly one of national but hardly of Imperial importance. It is a fair matter for argument whether the Imperial Parliament should undertake or subsidise public works in Ireland of a local or national character. If the Union were to be maintained, I think Parliament certainly should do so; but under Home Rule there would be a matter for the Irish Parliament, and as a supporter of Home Rule within the Empire I would not come here to advocate any such system of doles. I trust, however, it is unnecessary to argue that, under such a system of Home Rule, public works of an Imperial character and magnitude may more properly be undertaken in Ireland by the British Government. Indeed, I would even say that the growth of an Imperial spirit in Ireland may largely depend on England frankly recognising such undertakings as Imperial obligations. These general considerations apply in a special degree to works such as "mail" harbours, calculated not only to improve communications between the two islands, but also to bring Ireland into the main stream of world traffic and to bring home to the Irish people the value of the Imperial connection as part of their national heritage. As regards Naval bases and strategic harbours, these are obviously Imperial, and must be provided and safeguarded by England in any scheme of Home Rule within the Empire. I venture, therefore—Home Rule being on the Statute Book, and its repeal being to be inconceivable—to urge on the Committee that they should give the first place to these Imperial aspects of the transport problem rather than to the local or national aspects, and it is on this supposition that I base my suggestions.

Mail Harbours.—It is hardly necessary to argue the mere proposition that a transatlantic port or ports for express traffic on the West Coast of Ireland would be of great advantage to Great Britain, especially if connected by train-ferry or tunnel with the water island. The saving of distance, and the avoidance of the congested waters of the English Channel and the Irish Sea, are important considerations at all times, while in war time there is the lessening of submarine risks. At any rate, all parties in Ireland may be relied on to support this general principle, and no rival claims of competing ports will, I trust, weaken this support. If considerations of expense permit, there would appear to be an advantage in having more than one such port, in view of the growing volume of transatlantic traffic, so as to utilise both the L. and N.W. Railway and the G.W. Railway.

Naval Bases and Strategic Harbours.—The need for them on the west coast of Ireland, and their respective harbours, are, of course, questions for naval and military experts. But to the uninitiated civilian mind the former would seem to demand concentration, while the latter would require rather diffusion and multiplication, both for the embarkation of troops and the discharging (especially in war time) of cargoes of food. It has been suggested that a "mail" harbour and a naval base might be combined in one port, and though naval practice has been to segregate naval bases, even in the recent case of Rangoon, the reason for this is not apparent to the mere civilian. Again, a "mail" harbour is, of course, frequently combined

Chairman—continued.

with a commercial port, and there is an obvious advantage in this if mail and passenger ships are to continue to carry goods. But if goods traffic and express traffic are to be separated as in railway transport, which seems a natural development, mails and passengers can evidently be diverted more easily than goods to new routes unconnected with existing commercial centres. So far, I speak only for myself; but I now come to consider the application of these principles, and clearly the various possible sites must be carefully examined and compared, whether one port only or more than one is contemplated for each of the above classes, either singly or in combination, and I therefore beg, on behalf of my Board (Foynes Harbour Trustees), to put forward the claim of Foynes, on the lower Shannon, to be included in such investigation. My Board will be prepared, if so desired, to offer expert evidence to the Sub-Committee in support of their claim. But, their revenue being small, and very seriously reduced by the war, they cannot afford to incur much expense of this kind. They hope, therefore, if a *prima facie* case is made out to its satisfaction, the Sub-Committee will itself undertake the necessary further investigation by experts.

Foynes Facilities.—Coming now to the case of Foynes. The main requirements of the three classes are:—

(1) For a Transatlantic "Mail" Port.—1. Proximity to America; 2, safety of approach in all weathers; 3, sheltered deep-water berths at all times of tide; 4, proximity to London.

(2) For Naval Base.—Requirement 2 is essential and 3 probably desirable; requirement 4 is not necessary; but 5, deep-water anchorage large enough to accommodate a war fleet, is essential. This is not necessary for a "mail" port.

(3) For Strategic Harbours.—Requirement 2 is essential; and 3 is important; 4 is not necessary, though mail communication is essential; 5 is not necessary; 6 finally, the cost of necessary works, both land and sea, must be taken into account in all three classes.

Requirement 1.—There is little to choose between Blackhead, Killybegs, Galway, and Foynes on the estuary of the Shannon, which are all practically the same distance from America.

Requirement 2.—The approach to the Shannon is, I believe, the safest in all weathers of the four, being free from rocks and shoals, and the contour lines of soundings being specially well defined and gradual in alteration towards the land. Once the estuary is made, the navigation is perfectly free and straightforward up to Foynes from the mouth between Kerry Head and Loop Head, and vessels frequenting the port often enter it without taking in a pilot.

Requirement 3.—Foynes is singularly well situated in this respect, as it lies under the lee of Foynes Island, which acts as a breakwater and renders the anchorage land-locked, and the harbour practically a natural dock. The small existing pier has one berth with 25 feet of water at low water spring tide, and the accompanying plan of Sir John Griffiths shows the extensions contemplated in the near future, and the ample room for further development of deep-water quay accommodation to the eastward.

Requirement 4.—Foynes is almost on a direct line from London to Halifax, via Fishguard and Rosslare. It is connected with Limerick by a railway twenty-five miles long, built, in 1856, with a special view to transatlantic mail traffic, and is thus nearer in time to London than any of the four ports except Galway, which is about the same distance. The railway at Foynes runs down to the existing deep-water berth.

Requirement 5.—The whole estuary of the Shannon from Tubber to Foynes (eight miles) is well adapted for this purpose, and the Atlantic Fleet and the Channel Fleet have several times assembled there in recent years. The tides are strong, but the anchorage is good. Foynes Harbour itself is not large enough for this purpose; but, as pointed out above, this is not necessary for either a "mail" or a strategic harbour.

Requirement 6. Cost of Works.—This is, of course, a question for engineers and other experts, and I do not propose to offer any opinion on it. But if cost is any consideration,

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[Continued.]

(Shannon—continued.)

consideration, I believe it will be found that the necessary "mail" accommodation can be provided much cheaper at Foynes than at any other of the ports suggested. This is owing (1) to the protection afforded by Foynes Island, which obviates the necessity for a costly breakwater, and (2) to the railway connection being already in existence. In support of this belief I would refer to—(a) the Report of the Commons Committee of 1868 on "Western Harbours (Ireland)," mentioned above, which recommended three ports for consideration as "mail" harbours, and estimated the cost in each case as follows—Galway, £250,000; Turbot, £75,000; Foynes, £13,000. They also preferred Foynes on navigation grounds. These figures would, of course, be multiplied many times now—perhaps tenfold—but the proportions would probably remain much the same, as Galway would require a very costly breakwater, while Turbot would need another ten miles of railway. I may add that in one respect I believe such a comparison of cost as between the Shannon and other ports would now be markedly more favourable to the former than it was sixty or seventy years ago, viz., as to the character of harbour works. For whereas in those days piers were generally solid stone walls—and this was the case in the then existing works on the estuary of the Shannon, and in the plans then proposed—harbour engineers now favour where possible pile structures either of wood, iron or reinforced concrete. These have the double advantage (1) of being cheaper in first cost; and (2) of lending themselves better to alterations and extensions as circumstances vary and developments require. Now the Shannon estuary is singularly well adapted to pile work from the nature of the foreshore, which is generally alluvial and rarely rocky, and this is specially the case at Foynes; whereas these conditions are not, I believe, found, at any rate to the same extent, in any of the other ports in question. This is, of course, an engineering question, but I believe the facts are as I have stated. (b) Sir John Griffith's plan submitted herewith for a deep water quay 200 feet long at an estimated cost of £8,000, showing line of future armaments; and (c) plan prepared by Mr H. T. O. Day, C.E., for Lord St. David's Committee in 1917, also submitted herewith, for an emergency work to accommodate a 5,000-ton grain vessel at all time of tide, which was estimated to cost £10,000, and to require only eight months for execution. Such is the case I submit for Foynes being considered as Imperial scheme as in contemplation. If the Sub-Committee propose to discuss local and national schemes, either instead or in addition, I will ask to be allowed to submit our claim under these heads also on a future occasion. It would be based on somewhat different grounds, and supported by other arguments.

In conclusion I may state, as regards our past record—(1) Foynes Harbour Trustees were constituted and the harbour transferred to them by the Board of Works only twenty-eight years ago. (2) The harbour was then in a neglected, not to say dilapidated, condition. (3) With little or no assistance from the State, and none from any local authority, they have largely increased the accommodation, traffic and revenue of the port. (4) Under the advice of Sir John Griffith they have undertaken works of development to meet the growing traffic requirements, but his plans could only be partly carried out owing to the trustees' limited resources at that time, and had to be further curtailed on the outbreak of the war in consequence of the Treasury reducing the loan it had promised. The first instalment, however, of these is nearly completed. I will not now trouble the Sub-Committee with further details under this head, which are hardly relevant to the Imperial case, as this rests rather on natural advantages than on local effort. If, on the other hand, it were a case of meeting local effort to develop these natural advantages for local or national purposes, I venture to submit that our past record would be highly relevant, and I should be prepared to show that we have made the best use of our opportunities so far, and to maintain that this is the best justification for claims for substantial assistance from the State.

297. What would the position be in regard to railway communication?—We have got a railway there now.

298. The standard gauge?—The ordinary gauge.

(Chairman—continued.)

299. Is it a single line?—Yes, from Limerick. I think there is a double line from Limerick towards Rosslare. I don't know how far it goes.

Mr. Lindsay.

300. I think the whole of the old Waterford and Limerick Railway was single?—It is a double line from Limerick to the Junction.

Mr. Hanson.

301. And double to Tipperary?—Yes.

Mr. Field.

302. Is your proposition to have Foynes as a transatlantic port for mails and passengers only?—I submit that the port is eminently suited for that purpose. We recognise that by our unassisted efforts we could not aspire to level it up to the requirements of a transatlantic port, and for that purpose I submit it would have to be an Imperial work.

Mr. Lindsay.

303. The idea in connection with the Blacked Bay scheme was that Blacked Bay was to be a terminal and that the boats would only carry passengers and mails, and that no goods in the ordinary sense would be dealt with?—I did not contemplate goods for England being landed at Foynes, though I discuss the Sub-Committee are aware that Lord St. David's Commission considered the question of utilising Irish ports as a war emergency for goods to England.

Mr. Hanson.

304. You contemplated the train-ferry idea between Great Britain and Ireland?—Yes.

305. We were discussing this point earlier in the day. The Blacked Bay people, at all events, should seriously consider the question. They contemplated a twelve knot or hour ferry. A twelve knot or hour ferry is no use except for the twenty-one miles across the North Channel. If you are going to have Rosslare and Fishguard a twelve knot or hour ferry would be very slow?—Yes. I have not gone into the train-ferry question closely. When I heard the matter discussed on previous occasions, and the Newfoundland people speaking about it, train-ferry was contemplated, I understood.

Chairman.

306. One idea in connection with the Foynes scheme was that it could be used for discharging into canal boats for inland distribution?—Yes. That has been contemplated. I know in previous times a connection between the estuary of the Shannon and the inland waters of the Shannon was considered by the original Shannon Navigation Commission. It was part of their scheme. I confess I have not considered the question whether that is a commercial proposition or not.

Mr. Lindsay.

307. There is a connection at Limerick at present, but I understand it is very bad?—Yes.

308. The fact is that no traffic passes now at all. The connection was so bad traffic never came along-side. Is there deep water?—Yes. I have got the chart here.

Mr. Hanson.

309. Would you say a few words on the possible economic development of the South of Ireland in view of a transatlantic port being established on the Shannon? Would it have any special influence on encouraging internal production?—I should hope it would have such an effect, but I am not prepared to say so. What response. I have myself thought that we might hope for an export trade in some Irish products to America.

310. That is exactly the point?—Foynes has a magnificent limestone quarry—a very heavy stone, which is suitable for engineering works and building construction, and I don't know what the possibilities are of finding a market for that in America. That is one of the possibilities that has occurred to us at Foynes. It has been suggested that there might be an export trade in potatoes to America.

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[Continued.]

Mr. Lindsay.

311. The export of potatoes depends on the price in the United States?—Yes. I was under the impression that there were many climates in America that were not suitable for the production of potatoes.

312. You were not thinking of the United States alone?—No. I heard it suggested that they might find a market in South Africa.

Chairman.

313. Is it considered by your people that the tidal currents are so strong as not to make Foynes a good place?—It has not been found so in the traffic.

314. That is very much modified by the sheltered position?—Yes.

Mr. Hannan.

315. Is it not true that considerable development has taken place during the last ten or twelve years?—Yes. That I can give further particulars of when the Sub-Committee visits Foynes. I say that we have shown that we have the courage to help ourselves, and we have done the best with very small resources to develop Foynes.

316. Has the oil depot at Foynes been a success?—Yes. I believe it is likely to be largely developed after the war. That is the first ocean trade that came there, but we always hope that we shall get some of the big goods there. We cherish the hope that we shall get the grain trade, or a portion of it, to come to Foynes.

317. You are not merely interested in Foynes, but in the general progress of the country, and one of the questions we have to inquire into is the development of inland water transport. Have you any opinion to give us as to the further development of canal traffic—the conveyance of goods over canals—in order to encourage the production of the class of article that would be carried economically by water inland?—I have long held a very strong opinion that the canals

Mr. Hannan—continued.

in Ireland, as in England, ought to be more utilized, and I should like to see them nationalised. Lord Monck's Commission was directed so trying to reconcile the conflicting interests of inland waters and arterial drainage.

Mr. Lindsay.

318. It only dealt with a few places?—Yes.

319. The Ballinamore Canal was condemned, and also the Ulster Canal?—That is so.

320. The Ulster Canal runs, roughly, from Lough Neagh to Lough Erne. There is a little business on it still, but it loses money every year?—Yes.

321. Canals in purely agricultural countries have not sufficient traffic, so one can hardly believe there is a great future for them in Ireland?—I have always thought that the traffic on the Grand Canal and on the Shannon might be very largely developed.

322. We had a witness to-day who pointed out that in the Shannon district there were only 96 people to the square mile?—There are no large towns on the Shannon. Athlone is the biggest, and it is not very large.

Chairman.] We are very much obliged to you, Lord Montagu, for your evidence, which will be very useful when we go down to Foynes.

Witness.] Do you wish to have any engineering evidence at Foynes?

Mr. Hannan.] I don't think so. We want to get the facts from the ordinary commercial side.

Witness.] Our engineer, who carried out the works we completed nineteen months ago, is now in khaki in the Air Force, and I cannot get at him. He had the whole thing at his fingers' ends. If you wanted any engineering witness I should have to look elsewhere.

The Sub-Committee then adjourned to the following morning, at 10 o'clock.

SECOND PUBLIC SITTING: TUESDAY, 10TH SEPTEMBER, 1918.

In the OAK ROOM, MANSON HOUSE, DUBLIN,

At 10 A.M.

MEMBERS PRESENT:

Colonel John GRETTON, M.P.

Mr. William FIELD, M.P.

Mr. Matthew KEATING, M.P.

Mr. W. A. LINDSAY, M.P.

Mr. P. J. HANNAN.

Mr. PHILIP MACNULTY, Secretary

Sir ARTHUR SHIRLEY BERN, M.P., in the Chair.

Mr. H. M. DOCKRELL, Representing the Dublin Industrial Development Association, called in; and Examined.

Chairman.

323. You represent the Dublin Industrial Development Association, Mr. Dockrell?—Yes; I am a past president of the Association, and I am managing director of the firm of Thomas Dockrell and Co., Ltd. We had your Secretary's letter before our Council meeting, and the Council asked me to say that if you could give them some time to prepare a statement that they would lay their whole works before you. At the same time they asked me to come here this morning and lay a few matters before you.

324. You have read the reference to this Sub-Committee, and you understand what we want to get at. We want to find out what can be done to improve anything that may be wrong in the way of transportation, so that we can make suggestions to our main body?—Yes.

325. Have you got any statement?—I have not got any written statement, but I shall make a statement about the facilities at the Port of Dublin. That is the principal thing I wish to deal with. We wish to see a

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Chairman—continued.

proper linking up of the railways with the port. Now, for instance, the whole of the south side of the port is cut off from the railways. On the north side there are stations, but that does not really meet the case. What we would like to see is a further extension of loading from the ships into the railway tracks. Now, for instance, when the station for the Great Southern Railway was built on the north side everybody thought that that was an enormous advance, and that it would be a great advantage instead of having to bring goods right up to Kingsbridge to send them to the Great Southern station at the North Wall.

326. Is that the East Wall station?—It is on the North Wall.

327. It is called the East Wall?—I would call it the North Wall. There is only the one station. That looked very nice, but in pre-war days it practically amounted to this, that it was as cheap to carry goods from the quay up to Kingsbridge as to put them into the Great Southern station on the North Wall and pay

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Mr. DOCKRELL.

[Continued.]

Chairman—continued.

pay the railway charges. In making a case for the extension of the railway to the other side of the quays—the south side—we want to avoid that pitfall. We don't want to advocate such a scheme as will leave it a nice question as to whether one would bring the stuff up to, say, Harcourt Street, or put it into the station at the South Quay. We want, in other words, to see facilities along the whole port for loading into the railway waggon as far as possible.

328. Do you mean such facilities as would link up Harcourt Street?—Harcourt Street is the goods station for the Dublin and South Eastern Railway Company. One must cross the Dublin line, and it would be only natural that if the facilities were there that one would put the goods on to the Dublin and South Eastern somewhere between town and Leaside Road. We have to go to Harcourt Street with the goods because this company has no goods station on the quays or facilities for such goods by their passenger line. Then, sir, the next point that I wish to deal with is the question of the cranes available.

Mr. Hanson.

329. Where—at the docks?—On the North Wall. My firm are very large plate-glass merchants. We used to bring in glass from the Continent—we and other firms—but the shipping company had no cranes that would lift a large crate of plate-glass out of the vessel. The consequence was that we had to send down a very large staff of men to put the crates on to the dock. Another firm killed a man and we injured several in the handling of the crates on the quays, and then the traffic had to go to the London and North Western Railway Company, who, of course, have magnificent facilities. The next point I would like to make is that better use should be made of the tramways. As far as possible they should be linked up with the quays.

330. What is the suggestion?—I leave the scheme to be worked out. We want the quays and the tramways to be linked up in order that goods might be put on the tramways and distributed through the city and suburbs.

Mr. Lindsay.

331. You want the tramways linked up with the quays?—Yes, for goods. The next point to make is that here in Dublin we appear to be in a vicious circle. Ships all over the world are getting bigger and bigger, and it is harder and harder to bring in direct cargoes from across the ocean to Dublin, and we have not the number of huge factories they have in other places. The tendency, on account of the high cost of partial discharge of a cargo, is for the goods to go to England and to be discharged there, and to come across on the cross-channel ships, thus running the cost of goods to the whole country. We want the best use to be made of existing facilities in linking up everything in distributing goods both to the city and the surrounding districts. I think, sir, that is all I want to say.

Chairman.

332. You want the South Quay linked up?—Yes, with the railways.

333. How are you going to link them up?—Well, I don't want to outline a scheme, but there have been schemes discussed for years. I am not an engineer, and I don't wish to say one scheme is better than another. I only want to avoid an enormous scheme which will cost so much for transhipping the goods or rather handling them on to the main line that we would be no better off than if we carried them from the quays. In other words, I want to cheapen the distribution. As I am not an engineer and have not considered the matter from the point of view of all the line, I could not, of course, make any statement as to a scheme.

334. With regard to the discharging of your plate-glass, where was it discharged?—On the North Quay.

335. How many cranes are there on the quay?—I cannot say the number of cranes. I know of no cranes on the quay where goods are brought in from the Continent sufficient to take our glass out and put it on to our fleet, such as the London and North Western have.

336. I understand they have several cranes in the port. You have a one hundred-ton crane?—Yes. No

Chairman—continued.

one would think of shifting a vessel to get a couple of things out.

337. You have several five-ton cranes?—Yes; and, of course, the London and North Western has great facilities for discharging.

338. You say you would like to see the trains linked up with the quays?—Yes.

339. Have the tramways authority to carry goods?—Yes; because they do carry goods, in fact. They take gravel from Howth over the tramway system, and deliver it to the outlying suburbs. What the difficulty would be of bringing the tramways down to the quays I cannot say.

Mr. Hanson.

340. Was not the gravel in connection with the maintenance of their own permanent way?—I think they have an Act of Parliament limiting their powers.

341. But when they carry gravel or material of that kind, is it not for the maintenance of their permanent way?—No.

Chairman.

342. Do the tramways take parcels?—They do, and deliver them very efficiently; but that is from the traders in the city.

Mr. Lindsay.

343. Do you mean to say that you propose that the tramways should go down alongside the quays and take goods there and deliver them around Dublin?—Yes, and the suburbs.

344. This is an individual idea?—I think it is very extensively done in America.

345. In the States the trams run for miles. They are more like railways?—Yes, and the railways are like tramways. They are not fenced in by great stone walls.

346. Have you any instance in the United Kingdom where street tramways have collected goods alongside steamers and delivered them?—No, but it appears to be a common-sense arrangement.

347. You might do it with motors?—They would do for parcels, but when you get to 10 or 20 tons the tramways would be best.

348. There is another point. You said that you found it cheaper to carry goods from the North Wall to Kingsbridge than to have put them on rail there?—No, but I said that there was very little difference.

349. You led up to that by saying that when the line was extended to the North Wall there was an anticipation that a considerable saving would be effected?—Yes.

350. That considerable saving has not taken place?—No.

351. Could you give us the difference in rates in any goods you like to take between the North Wall and Kingsbridge, so that we could see what was the extra charge to the North Wall as compared with Kingsbridge?—Just before I came here I asked for some of our rate cards, but unfortunately we did not keep the previous card. I believe it was somewhere about 2s. 6d., and that 2s. 6d. which would bring goods from the quay to Kingsbridge would in the ordinary course bring goods to Bray.

352. You mean 2s. 6d. more a ton on a certain class of goods?—Yes. I put that amount forward with difference.

353. You said that there was no communication between the Dublin South-Eastern and the quays?—Well, here is what I mean. You can get on to the Dublin South-Eastern by a roundabout route from the North Wall, because you could get on to the Great Northern and then across the loop line to the South-Eastern, but on the South Quay there is no connection with any railway. What I meant was that Dublin is a one-sided port so far as railway facilities are concerned.

354. That would not matter if the one side were sufficient to handle the traffic?—Everyone who is on the south side is at a disadvantage. They have to go on the north side or cart goods to the north side.

355. No ships go to the south side owing to the lack of railway facilities?—They have to come to the south side, but they discharge at that side at a disadvantage owing to the want of railway facilities.

356. If

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Mr. DOCKRELL.

[Continued.]

Mr. Lindsay—continued.

356. If goods are being landed for the purpose of being used in Dublin and are landed on the north side they are put in wagons straight away!—Even at the north side you have cartage to the station, and I suggest that it may be possible to further extend the lines from the station on to the quays.

357. Do you mean to say that boats on the North Wall cannot load into wagons!—Only at certain points.

Colonel Gordon.

358. In regard to the south side, you say that vessels unloading on the south side are at a disadvantage!—Yes.

359. Why?—Because they must cart everything on to a railway unless the goods are required for Dublin.

360. I see. What you want is a line down the quay!—Yes.

361. From the direction of Kingsbridge!—Well, of course, I prefer not to say where. You could run the line up to Kingsbridge—that would be an ideal thing—or we could switch it on to the South Eastern. I don't want a great big station that would take up a lot of room and that nothing would be gained by putting goods into it.

362. Do you find a difficulty in distributing your goods in the district served by the Dublin South-Eastern?—Well we don't find it impossible. We have to get it done by horse haulings, but we think it could be more usefully done by the railways.

363. Coming back to the North Wall quays, is the difficulty there that you cannot get railway wagons alongside the stevedores!—Only at certain points can that be done. There are certain points on the north side to which you cannot get wagons at all.

364. In regard to facilities on the north side, is your complaint the lack of a sufficient number of powerful cranes and insufficient railway sidings!—Yes.

365. That is the summary of it?—Yes, that is the summary of it.

366. In regard to the suggestion of using tramways to distribute heavy goods, how do you propose to deliver the goods from the tramways into the various stores and other points!—That would be a matter for arrangement between the parties concerned. If they had sufficient traffic I take it the tramway company would have spur lines into the larger stores. If not, they would discharge as at present along the line early in the morning.

367. Otherwise the tram lines would be blocked!—Yes.

368. Are the tram lines sufficiently heavily constructed to carry heavy traffic!—They carry very heavy trams on some of the lines—on the Dalky line, for instance, there are 5 or 10 ton trucks.

369. Five tons is the ordinary size!—Yes. We would like an opportunity of presenting our case more fully on a future occasion.

Chairman.

370. I don't know that there would be anything that you have not told us, Mr. Dockrell!—I don't think we have covered the ground by any means.

371. When we get back here we may make a point of asking you to come before us again!—Thank you.

Mr. Lindsay.

372. Mr. Dockrell, is it your suggestion that the State should do something to help the development of the Port of Dublin? Would you approve asking the Treasury to assist the project?—Really I would like to see a scheme worked out and see what we could do to help ourselves.

373. You don't ask for financial assistance!—I am afraid some would be necessary, but I would like to see all the parties concerned financially interested in any scheme of development that might be agreed on. We are in a peculiar position over here. I suppose, as I have said already, we are in a vicious circle. You will have to get us out of the circle.

374. Why should you receive financial assistance more than Belfast, which is also over here!—I think Belfast is in a peculiarly happy position by reason of the shipbuilding.

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Chairman.

375. We cannot go into that, but I gather that you want to see work done on matters where the money comes from!—Yes, and everybody concerned made consenting parties to it, so that we won't find we have got the wrong scheme after having spent a lot of money.

376. Is the Port of Dublin ever congested and the facilities insufficient to deal with the traffic without undue delay!—Vessels have sometimes, I understand, to wait outside to be discharged, but that does not come within my personal knowledge, so I would prefer not to say anything about it.

377. Are they vessels with special cargoes or general cargoes!—I think they are special cargoes.

378. You say that facilities exist at certain points on the North Quay for handling certain traffic and that when you get beyond that practically the vessels cannot go anywhere else. Has that occurred in your experience!—Yes.

379. Does it occur frequently!—It has not occurred so much since the war broke out. The volume of traffic I take it, has not been so great except in respect of certain items. It undoubtedly did not exist in past years.

380. What was that—grain traffic!—It would be probably the ocean-going traffic, and probably grain.

Mr. Hennes.

381. Now, I think the Committee would like to know what sort of public opinion exists in Ireland in reference to problems of the kind we are investigating. Is it a fact that bodies like yours from time to time seriously consider from a constructive point of view questions of this sort!—Yes.

382. What sort of representations do you make about them!—Well, there is probably a discussion on the matter, but beyond putting the views of the Association before Parliamentary representatives, I am afraid there is no other means of having the suggestions we make carried out.

383. Have you any relations with bodies like the Chamber of Commerce!—Well, I am sorry to say that we have not had in the past as close relations as we ought to have had, but I think that everybody is now coming to recognise that when certain bodies unite with each other on certain problems they get a greater weight of public opinion. The body you mentioned has been very much criticised for its attitude towards industrial questions in the past.

384. Does your organisation take the trouble to procure expert advice when dealing with a highly technical project such as the construction of a line of railway along the southern quay within the economic capacity of the port and the requirements of Dublin!—Yes and no. We try to obtain the best technical advice we can, but naturally you cannot get technical advice except in a general way without paying for it, and we have not got funds at our disposal to enable us to say to a competent authority, "Will you survey the Port of Dublin and report to us on it?"

385. The reason I put that question to you is this—I am intensely Irish myself, and I should like to feel that there is something behind the resolutions that are so frequently passed; and I want to know whether your organisation take the trouble before passing resolutions to inform yourselves of the possibility of achieving some result. I am speaking quite kindly!—Well, as I said, we do the best we can. Without funds at our disposal we could not get real expert advice.

386. You represent an organised body of industrial opinion of which, I am sorry to say, there is only a comparatively small volume in Ireland. Is there any growing seriousness in Ireland towards organised industrial effort!—Yes.

387. Apart from agriculture!—Yes.

388. And apart from the North of Ireland!—There is.

389. What is your general procedure in the Dublin Industrial Development Association!—We have a Council which meets once a week, and our practice has been, whenever any matter crops up, such as this inquiry, to appoint a sub-committee composed of people who know most about the subject. They would try to bring in people from outside to advise them, and afterwards present a report to the Council. The Council would consider the report. That would be the ordinary procedure that we would adopt say in regard to a matter of which we had got long notice.

390. Would

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Mr. DOCKRELL.

[Continued.]

Mr. HANSEN—continued.

390. Would you adopt that procedure regarding this Sub-Committee and let me have a report before the close of this inquiry?—Yes.

Mr. FIELD.

391. You have been President of the Association yourself, Mr. Dockrell?—Yes.

392. Is it a fact that this industrial movement is practically spreading all over Ireland?—Yes. There are branches in Cork, in Belfast and other places.

393. You are aware, of course, that exhibitions have been held in connection with this development movement in practically every city in Ireland?—There have been exhibitions held.

394. Is it your view that public opinion in Ireland is fixed on the question of industrial revival in this country to an extent that it had never been fixed before?—We believe that if we don't keep on our legs now we never will.

395. As a matter of fact, in our Association—because I am a member of the Council—we have a number of the manufacturers of Dublin?—Yes.

396. And a great many shopkeepers?—Yes.

397. And everybody interested in industries is represented on the Association?—Yes. I must say that there are bodies such as the Chamber of Commerce and the Mercantile Association working on different lines. We go in more for the development of industries. The Chamber of Commerce—

Mr. ROBERT WORTHINGTON, Re-Examined.

Chairman.

403. You wish to add something to your evidence of yesterday, Mr. Worthington?—Yes, Sir. I did not consider the question of traffic. I was under the impression that so far as the Transatlantic harbour was concerned the inquiry was limited to selecting the best site for the Government to subsidise; consequently, I did not consider it necessary to go into the question of traffic. Without a Government grant or subsidy the home of a Transatlantic port in Ireland vanishes. The Government gave a subsidy in 1887 of £78,000 per annum; Ireland subscribed £500,000 and lost it in consequence of the subsidy being withdrawn. We contend that this is an Imperial project, and was so considered by the Imperial Conference. See their resolution stating so.

404. We know all about that. What we wanted more from you yesterday was an idea whether you suggested that Galway should be made into a port for discharging all goods and loading up goods?—Yes, certainly, and on that point we contend that Galway is

Mr. F. A. ANDERSON, Secretary to the Irish Agricultural Organisation Society, Examined.

Chairman.

407. Mr. Anderson, you are Secretary of the Irish Agricultural Organisation Society?—Yes.

408. I suppose you have read the terms of our reference?—I have read the reference. I told your Secretary in a note I sent him, and I also intimated to my friend, Mr. Hansen, that I was not an authority on the subject, and that I did not come posing as a professional witness; but, of course, the work I have been doing for the last 20 years brought me all over Ireland, and I have seen a good deal of the shortcomings of inland transportation, and there may be some suggestions worthy of the consideration of this Committee which I dare say I can put forward in the form of a written memorandum which might be conceivably more useful than any hurriedly answered question.

409. I presume you read the Report of the Commission on Inland Transit?—I am afraid I have not. I know in a general way the trend of it, but I have not studied it closely. I suppose the question of railways is not quite the most important.

410. Only in so far as they may be insufficient to carry the present traffic of Ireland?—If I might offer a suggestion to the Committee, it would appear to me that at this time, when all the railways of Ireland are being controlled by the Government under a Central Committee, it might be possible to try experiments that in peace times would not be listened to and which

Mr. FIELD—continued.

398. Is more aristocratic?—You don't expect me to admit that, Mr. Field.

399. And it has more politics?—I think that is right, Mr. Hansen? In the Chamber of Commerce?

Mr. FIELD. Yes. It is a political preserve.

Mr. HANSEN. You are a member of it.

Mr. FIELD. They got me out three times.

Witness. They brought him back again.

Mr. FIELD. Because they could not help it.

Chairman.

400. Roughly, how many members have you, Mr. Dockrell, in your Association?—I am afraid I could only guess. In many cases there are associations affiliated with us.

Mr. MONSON.

401. Will you send in a full statement later on from your Association?—Yes.

Mr. FIELD.

402. I know as a member of the Council that there was not time to fully consider the matter, and it is important that a full statement should be handed in on behalf of the Association?—Yes, we shall send in a statement. I mentioned in my evidence only a few of the points that we wished to bring before the Sub-Committee.

Chairman—continued.

the best harbour because it is close to Dublin. If Blackhead Bay were selected there would be 80 miles additional of railway carriage. We also think railway companies would give special facilities for bringing traffic to and from the West of Ireland. We also consider that the short sea voyage—three and a half days as compared with Liverpool six days—would enable a greatly reduced ocean traffic rate as compared with Liverpool. The Galway people want me to go down to Galway when you are sitting there, and Lord Killarney is anxious to address you. He wrote a pamphlet on the subject of Galway as a transatlantic port.

Mr. FIELD.

405. Can you arrange for Galway people to meet us and show us around and give us all the information?—Yes; I will get the leading merchants of Galway to be present and to give you all information.

406. That is what we want.

Chairman—continued.

the jealousy of the various companies would make very difficult of accomplishment. For example, I know two towns where two railway companies have separate stations where passengers have to walk from one station to the other, and where the railway companies do not extend to each other the courtesy of running powers, and I really think that now the State is managing railways experiments might be tried with advantage in regard to general running powers, transshipment facilities, etc.

411. Are the goods transferred as well as the passengers?—There is difficulty about the goods. I am talking of such places as Navan, Carran and Athlone, where, if there is a means of transferring the goods, it is a cumbersome and roundabout means. Dublin itself affords an example of the need of unification of railways. I think, too, at the present time industries and agriculture could be assisted very materially by making a greater differentiation between the rates charged for such things as manures from towns to be used in the country, the transportation of limestone from one part of the country to another, where it is needed for the top-dressing of land. These kind of things do not pay the railway companies, perhaps, as a commercial proposition, but it would pay the country, and if the railways could be run as one concern then I think that in one way and another the traffic

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MR. ANDERSON.

[Continued.]

Chairman—continued.

traffic, if there was a loss, would be more than compensated for by the increased productiveness that would result in the country as a whole, and, as a consequence, greatly increased traffic. I understand this Committee is interested in the utilisation of waterways. I think they might be utilised to a very great extent by the improvement of the boats, by using motors instead of horses, enlarging the locks, and having proper facilities for collecting and delivering goods by motor services at both ends. Apart from the canals there is a lot of water in Ireland, in the Midlands particularly, and a great deal of it is apparently unused as a waterway, and it does seem to me that that is capable of very great development. I have always realised that the provision of facilities for traffic must have a very stimulating effect on the production of the goods that provide traffic. If you have no proper traffic facilities the people can't, or at all events don't, try to develop production. Well, I don't know if the Committee is considering this question, but there are a number of ports in Ireland which I don't think would bear the expense of a railway, and which I don't think would need a railway. These places could be linked up with the railways and the railways themselves fed by a proper system of motor transport such as will be possible after the war, when no doubt motor vehicles can be obtained at a reasonable price, and I think they ought to be largely used for that purpose. I know many districts where I would not suggest a railway being built even of the lightest description which would respond very quickly to a good system of motor traffic. I look upon the roads as being quite as important as the canals and railways, and the roads in many parts of the country are notoriously bad, and some of the roads which had been steam rolled have now been allowed to get into a bad condition. Apart from motor traffic, horse haulage is impeded by bad roads. The wear and tear on horses is heavy, and so with the vehicles, and the time occupied in carting is also unnecessarily long. All these things could be improved by a general system of improving the roads of the country, and not only the main roads, but also the bye-roads. I think these few suggestions I have made cover about all the ground. There is much need for better facilities for the conveyance of perishable farm produce, and for milk in particular. It is tremendously important for us here in Dublin to try and get a supply of milk for the poor people. The Dublin cow-keepers are threatening to put the price of milk up to 3s. per gallon, and that would mean that the poor could not get it at all, and their children would of course suffer. I am trying to organize the supply of a limited quantity of milk for the very poorest, and we have to get this from creameries few of which are nearer than 50 or 90 miles from Dublin. I don't complain of the rates the railway companies charge for the conveyance of milk, but I do complain of the way the traffic is handled. Mr. MacSally and I were concerned some years ago in a large scheme to convert the railway companies from their old ways. We are told that this traffic is very distasteful to the railway companies, and they say it does not pay them. There has been pilfering in transit, and a quantity of milk is split. The traffic often is delayed, and when the milk arrives it is sour. The cans when being returned are frequently damaged and often lost. The lids are sometimes missing, or lids belonging to other cans are substituted for the proper ones. The loss of cans is so considerable that a number of people who would have otherwise been ready to send milk to Dublin have become so disgusted with the losses that they have had to sustain that they refuse to continue to send milk. Cans now are extremely difficult to procure and are very expensive. A 20-gallon can would now cost as much as £4 10s., and it is almost impossible to get them even at that price. All the British firms that used to make these cans are now engaged in munition work. We have to get most of our cans now from Copenhagen, and that is very difficult. You have to procure a permit, and it takes months before you can get the cans. I might just mention for the information of the Committee that this co-operative agricultural movement of ours embraces about 120,000 members, roughly speaking. There are over 1,000 societies, and the annual trade turnover will this year exceed £10,000,000. It began

Chairman—continued.

about 30 years ago. Sir Horace Plunket started it, and I have had the privilege of working with him from the beginning and I have watched it grow up. It is a movement which I think is likely to lead to tremendous developments in the agricultural industry of the country, because there is no branch of the farmer's industry that it does not touch either directly or indirectly. We have got the farmers to realise that they want a central organisation (known as the "I.A.O.S.") just as much as any other industry wants its trade unions and that they must support it. I calculated this morning that as a result of "rubbing it into them" in the past they will have subscribed close on £20,000 to the I.A.O.S. funds this year. The I.A.O.S. does not engage in trade itself. It only gives advice. It only advises how to organise, and does not interfere with the local societies afterwards. If they ask for advice it is given, but the I.A.O.S. does not accept any responsibility for what the societies do on their own initiative.

412. Is farming kept back through lack of proper facilities for transport?—Oh, undoubtedly.

413. If there were proper facilities do you think the farmer would go ahead?—Yes.

414. Is there a difficulty about delivering from the canals?—Yes, and there is where you want the system of motor lorries as feeders for the canal traffic and also for distribution. Of course, it is quite possible for a community of farmers to have their own motors, and a number of them have. A number have tractors. In Ireland after the war a great number of societies will arrange for motors. A few of the societies have also arranged in a small way a sort of transportation scheme, and a few of them have acquired motor lorries to collect milk and to bring back the separated milk from the creameries. That is increasing, but there is a difficulty at present in getting these vehicles, and petrol is expensive and its use is much restricted. It has been proposed time and again that we should be permitted to manufacture industrial alcohol for motors. No one wants to drink the stuff, and in any case that could be guarded against. So far the Home authorities have frowned on this, and it is just possible that they may make all the difference between success and failure in the motor transport system which I have suggested.

Mr. Lindsay.

415. Is there any case where you can take through bookings on railway and canal in a through bill of lading?—I cannot answer that, but I imagine you can. I don't know myself.

Mr. Housan.] I am afraid it is not the case in Ireland.

Mr. Philip MacSally.] No.

Mr. Lindsay.] You can send goods from Belfast to Dublin by the Great Northern Railway to hand them over to the Grand Canal to take them. The freight is paid to the Great Northern.

Mr. Housan.] You mean there is a through rate, including railway and canal.

Mr. Lindsay.] You do get a through invoice in this particular case, or a through charge.

Mr. Field.] I never heard of it.

Mr. Lindsay.] As far as the ordinary commercial transaction of paying freight is concerned, it comes to the same thing.

Mr. Field.

416. Is it your opinion, Mr. Anderson that the present system of transport, either on the canal or the railway, is inefficient and is hampering the progress of agriculture in Ireland?—Yes, I should say so, broadly.

417. That is your well-considered opinion?—Yes.

418. After 30 years' experience?—Undoubtedly. It is capable of great improvement.

419. Therefore you think this was a good time for this Committee to be appointed?—I should say it is a very happy time for the reason I have stated. As the railway companies are now Government-controlled, it is possible to try experiments that you could not try before.

420. Are you of opinion that the canals could be more fully utilised for the conveyance of agricultural produce?—Yes. The canal that is alongside the Midland Railway is enough to make you weep.

421. Closed?—Practically closed—unused, at all events. 422. You

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Mr. ANDERSON.

[Continued]

Mr. Field—continued.

422. You said, I think that the waterways in the centre of Ireland have never been fully utilized?—Undoubtedly.

423. You think that ought to be developed?—Yes.

424. With regard to motor traffic, are you of opinion that these cheap motors—for instance, like Ford's—would serve as collecting and distributing agents to a district where a railway would not pay?—I so.

425. And you think the Road Board ought to look after making the roads sufficient to bear this traffic?—Yes, undoubtedly. Take the case of Helmsfort. That is a case where it would be impossible to make a railway that would pay, and the people would be quite satisfied with a system of motor transport and good roads.

426. The point about milk is very important, although probably some members of this Committee may think it is more or less outside our functions. If you don't feed the children you will have no one at all by and by. This is a very crying want in Dublin—the difficulty of procuring milk?—Yes.

427. About industrial alcohol, do you think that ought to be allowed by the Excise in order to help the petrol?—Yes, and further, that the more of these things you can produce inside Ireland the less necessary there is of taking up tonnage, and the tonnage will be scarce for many years after the war.

428. And you have any quantity of potatoes here to produce that industrial alcohol?—Yes.

429. We may expect it to England?—Yes.

430. We have no chance of getting anything unless England wants it. Can the motor traffic be utilized in regard to the milk supply?—Yes, but not for carrying it long distances.

431. It chills the milk?—Yes. It is very much easier in hot weather on railways to provide chilling facilities. Even if you only use wet cloths on trucks with open sides that keeps the vehicle very cool. These are called "tatties" in India. The evaporation keeps the interior of the van cool.

432. I have seen milk coming into London by motor coach?—I dare say you would, but I think in Ireland it would hardly do.

Mr. Lindsay.

433. You referred to separate railway stations. You mentioned Cavan, Naran and Athlone, I think?—Yes.

434. There is only one station in Cavan. There is a physical connection?—It is not so in Naran.

435. As far as Athlone is concerned there used to be a train running between the two stations if there were any passengers, but I understand the number of passengers was so small that it was discontinued?—I will tell you rather a glaring instance. A member of our staff who was in London in connection with the Ministry of Food had to come back by Rossare. As he arrived at Waterford, the train that was to have brought him back to Dublin ran out of the station. That man had to lose four hours' valuable time. That only occurred the day before yesterday.

436. That is the same station?—Yes. That makes it worse.

437. You spoke about manures coming out of towns?—Yes.

438. Was not that decreasing very much before the war with the increase of motoring?—I dare say it would be.

439. There is one difficulty in connection with that in regard to canals. You could not use the lighters for anything else?—That is so.

440. And you could not afterwards get return cargoes. Have you looked into the question of canals used in England for agricultural purposes?—I am not familiar with England. I have never studied English agriculture.

441. You suggested at the same time that some of

Mr. Lindsay—continued.

the navigations in the Midlands might be used for agriculture?—Yes.

442. The Shannon is about as fine a waterway as any in the United Kingdom?—Yes.

443. It is absolutely in good order?—Yes, but there are no boats on it.

444. I think you want something more than boats?—The whole thing has got to be considered as one big problem. You must not take it piecemeal—the boats, railways and roads.

445. Would you say on the Shannon, where agricultural produce would come from?—There must be a great many places.

446. It has to go to fairly big places?—It has. I think you could use the Shannon very much.

Oileand Giffon.

447. In regard to milk, has your Society any information as to the production of milk in Ireland?—Of the quantity of milk produced?

448. Yes?—From memory I cannot give you the figures, but if the Committee desire I can give an estimate.

449. Is the production in excess of the Irish demand?—Yes, because otherwise we would not be able to export butter and cheese; but there is going to be a very serious shortage. There is a shortage of from 25 to 35 per cent. now as compared with last year, and the authorities here are contemplating stopping the export of milk cows. In the winter time the supply of milk is not nearly sufficient for the needs of the population. That is, of course, unfortunate.

450. Is it the policy of your Society to encourage the production of butter and cheese?—Yes.

451. Are the port and railway facilities sufficient?—There is a good cross-channel service between Ireland and England. We have not so much to complain of.

452. From what points?—Dublin and Waterford and Rosslare, Ballast and Cork. There are very fair facilities. There were some complaints, but on the whole the arrangements were good.

Mr. Hansen.

453. There is a very close relationship, of course, between the development of any kind of improved facilities for transport and the economic progress of the country as a whole?—Yes.

454. Is it not a fact for a long series of years a steadily growing movement has proved that Irishmen can in combination increase production very largely?—Yes.

455. And is it not a fact that organized agriculture in Ireland to-day is being maintained without regard to the very great variety of schools of political thought in the country with great efficiency by the farmers?—Ours is the only movement in Ireland untouched by the present political situation. It embraces men of every party and every creed.

456. I am putting this question to you because I want my colleagues to understand that Irishmen can combine for industrial ends?—They can and they have done so.

457. And the co-operative agricultural movement in Ireland has from the point of view of the value of the output increased from a few hundred pounds in 1889 to about ten million pounds to-day?—Yes.

458. And the movement is steadily growing?—Very fast.

459. And recent events in this country have not affected the continued growth of the movement?—No.

460. And to-day you find no friction as between varying sections of political thought in the movement itself?—No.

461. I think that is very important—that, notwithstanding political whirlwinds, there is one great movement that moves on all the time. This movement, Mr. Anderson, is entirely due to Sir Horace Plunket and your own co-operation with his efforts?—I simply carry out the directions of my Committee.

Alderman JAMES MORAN, Chairman, Dublin Port and Docks Board, called in; and Examined.

Chairman.

Chairman—continued.

462. I suppose you have read the Minutes of Reference?—Yes, Sir.

463. We want to find out as far as we can the facilities for transport, and we would like to hear from you what is the condition of things here?—There are various developments which would vastly expedite traffic.

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Alderman J. MORAN.

(Continued.)

Chairman—continued.

traffic—extensions in various directions. We have a certain amount of equipment which is quite up to date at the port. For instance, I may mention that we dealt with twenty-eight ships in one day in 1914. That was at the Alexandra extension. These were ships of moderate draft—from 13 ft. to 22 ft. In regard to the development of the port proper, there are various things really needed. We need, in addition to what we have there, the completion of what is known as the Alexandra jetty. We need also a railroad laid on there, as well as on the quayside. We have the rails on the Alexandra road, but there are no railway facilities on the Alexandra jetty.

464 The Alexandra jetty, I presume, is under the control of your Board?—Yes.

Mr. HANCOCK.

465 Is that on the south side of the river?—It is on the north side of the river. Possibly it might facilitate matters if I gave my views in chronological order. Our dry dock accommodation is by no means what we require. The existing dry dock, if lengthened by some 75 ft., would possibly accommodate 50 per cent. more ships than at present. Hundreds of thousands of pounds are sent away from the port owing to lack of proper accommodation at the docks. For instance, the other day a ship with a 9,000-ton cargo of coal was torpedoed. She was 10 ft. too long for the dock. There was £40,000 worth of work on her.

Colonel GREVILLE.

466 Which is the dock you are referring to?—The graving dock—the only one we have. There is great talk about shipbuilding now-a-days and extensions of shipping yards. We have done a good deal in that way, but in my judgment, it is futile to go further until we get additional dock accommodation. We must have an additional dry dock, say of 600 ft., that Admiralty ships could be berthed in if necessary. The construction of a spur wharf is absolutely necessary for the fitting out of ships when launched. At present there is no place to fit out a ship properly. She is sent from Jack to Jill. She is turned about and there is an amount of time lost, and time is money in shipbuilding. With the spur wharf alongside the dry dock it would make a lot of difference in the output of the port. I have already mentioned the desirability of having a new graving dock. Then we come to the south side of the river—to the southern quays. An enormous sum of money has been spent by the Port Board on developing these quays. I don't say it was wisely spent. I am rather inclined to say that it was the reverse, in view of the fact that there is no railroad accommodation of any sort, and until such time as they link these quays up with the railway system, in my judgment, these quays will never get more than 15 or 20 per cent. of the shipping which they ought to get. One thing that would be of immense importance would be a tunnel under the river, or, as an alternative, a transporter bridge. Thousands of people have to walk long distances to get to their work, and there is bad time-keeping. As a consequence, thousands of hours are lost, especially in winter time, if the workers have two or three miles to walk. That is a serious loss to the port. If we had a tunnel in that section the loss would be avoided. We have spent nearly three-quarters of a million on main drainage improvements, but up to the present the section we are discussing is left severely alone to a great extent. Sewage has to be pumped into the city and then pumped out again to get across the river, and, finally, to the pumping station at the Pigeon House. If you had a tunnel across the river all that pumping would be saved, and considerable expense would, of course, be avoided.

467 Where would you propose the tunnel being put?—I would suggest that it be put close to the Docks.

468 Have you had any estimate?—I believe there is an estimate for the work. I may be able to get you the figures. I know that there was an estimate for a comparatively small tunnel. Speaking from memory, it was £250,000.

Mr. FIELD.

469 I don't think you get an estimate for the big tunnel—I think the Corporation get one. That is one of the great advantages that would accrue from a tunnel—enormous labour saving, and giving the people there an opportunity of living on the southern side. It would mean a great deal to Freshwater and Bangor, because there is land available there for people. At present it is utilised for wood-raising and such-like purposes, and is not very productive, and that land would undoubtedly be developed and put to a better purpose if you had direct communication. Wherever you have big manufacturing plant you want electric power, and to compete successfully with your neighbours you want cheap power. As things are in this city to-day it is physically impossible to have cheap power. You have at the present time a Corporation power-house, you have a tramway power-house, you have a port and docks power-house, you have Rathfriland power-house, the Lucan power-house, the Sutton power-house, and the Great Northern power-house. You have all these one-house concerns instead of having one central plant that would supply the lot and supply them at very much less than half the present cost. Another thing that would tend very largely to develop things at the North Wall extension would be either the introduction of a motor-bus service or the extension of the tramway service so that men could get rapidly to their work. Another thing, yards worked on the same lines as in Belfast and other places have a special number of cars in the working hours. If that were done, I believe it would have a very marked effect in saving time, and consequently more work could be done. I should like to say that while Alexandra extension is in some respects modern, it is also in some respects obsolete. When the extension was constructed it was quite up to date, but the modern ships in three days was on the Gothic arch principle. To-day they are entirely different in shape—they are practically square—with the result that our extension is not suitably arranged for them.

470 Do you mean the breadth of the berth?—I mean that there is an off-set, and the result is that the new-shaped ship, which is practically square, is certain to get into trouble unless you are very careful in the handling of her. There is trouble there for the deep-water ships of which I have been speaking. There are only two ways of avoiding that; one is to try to get this and which causes an obstruction away—it is a matter for engineers to decide whether it is safe to do so or not—and the alternative is to build a jetty in front of the projection. Then you get any depth you want and there is no obstruction.

471 You could have an open wharf?—Yes. The vessel would lie against the jetty. The jetty would be to secure this projection. Otherwise the thing is all right. There is a risk at present for deep water vessels at low water. At high water it does not arise at all. Our board has been in communication with the Government in connection with a spur wharf, a new graving dock, and the extension of the existing one. A lot of letters have passed between us, but nothing definite has been done. We have borrowing powers at present to the extent of £200,000. I induced my board to agree to expend that sum right away on the construction of a new dock, provided the Government found the balance, and we pointed out that it could be constructed so that it would meet Admiralty requirements. That offer has fallen rather flat, I am afraid.

472 How much do you think it would have taken to construct this new dock?—Probably no much more.

473 What was to be its length?—Six hundred feet. There was some talk about £450,000 being the cost of the work. However, nothing has been done, notwithstanding that we made this offer, and I may tell you that, having regard to their financial position, my board were not keen on going on with the work either. It took a considerable amount of persuasion to get them to make the offer, but it has not been accepted. I need not tell you that a graving dock as an investment is not good business in the strict sense of the word. You never get the interest on your money. It is from the things that accrue in other ways you must expect a return.

474. But

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Alderman J. MORAN.

[Continued.]

Mr. HANCOCK.

474. But it works in with the port?—Yes; and that is where you get your money. It is not out of the dock. In connection with the spur wharf it is absolutely essential. You are bound to start in April of next year, but we are not bound to finish it until we can afford to do so. I made an offer to the Government to put it in hand forthwith and to complete it within the year provided always that they helped us. However, nothing has been done about that.

475. What was the definite proposal you made the Government on behalf of the port?—We were prepared to start the work now provided always that they contributed to the cost.

476. Did you get any reply?—Yes, lots of replies, but nothing definite has been done. There are so many different Departments that it is very difficult to get things done, at the other side, from here. If there was a Central Bureau here where local affairs could be handled it would facilitate matters very considerably.

Chairman.

477. Have you had congestion here?—What do you mean by congestion?

478. Where you had got vessels waiting?—No, that rarely happens here.

479. If you had greater accommodation would there be sufficient work?—Yes. If things were handled properly Dublin should be the distributing port for Ireland. It is only by the development of the port and turning the ships round quickly when they come in, and not keeping them there for days, that business will be brought to Dublin Port.

480. If the Government met you in connection with the improvements you have suggested, would you have to get money by loan?—We have borrowing powers under our Act of Parliament, altogether about £250,000. Any money expended in excess of this sum would have to be expended out of revenue, or increased borrowing powers would have to be procured.

481. You would require Treasury consent, I presume?—Possibly. We have a right to borrow £250,000 for the purposes of a dry dock. Whether they would place any obstacle in the way I do not know, but I am rather inclined to think they would not.

482. As regards the south side, do you think that the best thing for the traffic would be a transporter bridge?—I would prefer a tunnel.

483. If you could not get a tunnel?—Then have the transporter bridge; but it would not serve the same purpose as the tunnel in connection with electric cables and the city damage. That would still remain, and there would be the enormous expense of pumping first into the city and then out again to the pumping station. That would be all obviated if we had a tunnel. Needless to say, I would welcome the transporter bridge if nothing better were forthcoming.

484. Have you many travelling cranes at the port?—Our port is fairly well equipped with electrical cranes. We have 11 travelling cranes.

485. These are 5-ton cranes?—Yes, and one 100-ton crane. They are travelling cranes?—Yes. They go the entire length of the dock.

Mr. HANCOCK.

487. I suppose you have been constantly making representations to the Government about the port?—Yes. As Chairman of the Board for the last 15 months.

488. What Department do you bombard?—The Admiralty.

489. Has the Chief Secretary been tackled about this?—Mr. Duke was very sympathetic.

490. It is the quality of the Chief Secretary to be sympathetic?—I am not laughing at that statement at all. I am perfectly sincere in saying he was sympathetic. He meant to do what he could, but he never got much of a chance.

Mr. FIELD.

491. That is a feature of all Chief Secretaries?—I had the present Chief Secretary, Mr. Shortt, down at the port yesterday showing him over the "Promised Land," and he realised the possibilities of the port.

Mr. HANCOCK.

492. What was the date on which you made your proposal to the Government?—5th February last.

Mr. HANCOCK—continued.

493. Surely you must have received some reply bringing the question a little more forward?—Yes.

494. The reason I am putting this question is this—to follow the peculiar trend of the official mind in Ireland in dealing with a definite proposal made by a public body?—The work would be two parts completed now if they had acted on my suggestion.

Mr. FIELD.] The official mind does not work at all. That is where the difficulty comes in.

Alderman Moran.] Perhaps I might read this letter:

Port and Docks Office, Dublin,
5th February, 1918.

Sir,—In reference to your letter of the 27th December last (D.C.A.S. 34 X/3242332), I am directed to acquaint you that the Dublin Port and Docks Board have had under consideration the best means of providing sufficient accommodation for the present and immediate requirements of the Admiralty at the Port of Dublin.

In the first instance the Board, in accordance with an agreement with the Dublin Dockyard Company, have undertaken to construct a spur jetty or pier adjoining their existing dock; but the Board, under this agreement, are not obliged to begin the work until April, 1919, the postponement being mainly due to the fact that this work, requiring to be paid for out of revenue, could not be undertaken earlier or be pressed forward owing to their financial position. It is admitted that the construction of such a wharf would immensely increase the facilities for fitting out and repairing ships; and as it is understood the Admiralty recognise the great value and importance of having the work commenced and completed at the earliest moment, I am to state the Board would be prepared to undertake the work forthwith if the Government Authorities are willing to join in defraying the cost of the same, in view of the enhanced charges arising out of war conditions.

Next in importance is the necessity for increasing the dry-docking accommodation of the port. This can be met in two ways as follows:—

(a) By increasing the length of the present dry dock by 150 feet.

The matter has received the fullest consideration of the Board, and I am to state that this important addition to the shipping facilities of the port, especially to Government vessels, would be undertaken at once provided the Government could render some financial assistance in carrying it out, and also by allowing the expenditure thereon to rank as a capital charge and not one against revenue, the necessity for which is dealt with above.

(b) By providing a second large modern dry dock 600 feet in length.

This matter has engaged the attention of the Harbour Authority for a considerable period, and I am to state that the Board is prepared to expend a sum of £200,000, earmarked for this purpose under their Act of 1903, and is the full extent of their Parliamentary borrowing powers for this purpose, if the Government supplied the balance of the sum necessary to complete it, and to meet the enhanced cost as compared with pre-war conditions in this regard.

The dock, I need scarcely say, would at all times be of the utmost importance to the Admiralty. My Board consider that as the depth of sill to be provided for would be sufficient to permit Admiralty vessels using the dock, combined with the central position of the Port of Dublin, such a dock should be of the greatest advantage to the Government Authorities.

I am, Sir, your obedient servant.

(Signed) N. PROUT, Secretary.

Mr. HANCOCK.

495. We would be glad to have a précis of the whole story of your proposal to the Government?—I shall send you a copy of the entire correspondence.

Chairman.

496. And we would also be glad to have a statement from you as to the improvements you have suggested here to-day and the necessity of them?—I will prepare the statement.

497. And

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Alderman J. MORAN.

[Continued.]

Mr. HOSKINS.

427. And showing how, in your opinion, these improvements would tend to extend the trade of the port?—Yes. As far as the railway suggestion is concerned—the railroad on the South Quay—I am not an engineer, but I have had a lot of experience in different countries, and I do not know why the loop line mechanically could ever have been permitted. It destroys one of the most beautiful buildings in the United Kingdom—the Custom House. If you started your railroad at Marston and came across the Strand, where there was no land to buy, and came under the river and got on to the sidewalk, you would get sufficient grade.

Colonel GRIFFIN.

428. What railway accommodation would be desirable?—A line along the whole length of quay.

429. In what direction?—You could extend it up Bree to the plan.

430. How does the port suffer from want of a railway on the South Quay?—The port suffers in this way, that we have spent an enormous sum of money in providing accommodation, and they won't use it, and other portions of the port are at times congested. If you had a railway system, instead of the best portion of our property being monopolised by the coal trade, the coal trade would be relegated to another section. It would have to be discharged elsewhere, if there was a line of railway on the south quays. It is not desirable to have coal where you have flour.

431. What is the nature of the traffic that gets congested?—The ordinary traffic of the port, owing to the monopolising of the berths by the coal boats. During the last six or eight months, owing to strikes, there has not been much congestion. In normal times we will suffer owing to want of railway accommodation on the south quays.

432. One of the witnesses said that the railway accommodation on the north side is insufficient?—Probably it is, but you would relieve that if you had a track led on the south side.

433. Who is responsible for the laying of the rail lines in connection with the docks?—It is done by arrangement between the railway companies and the dock and harbour people. They could not lay the rails without our consent.

434. Had you any difficulty in getting lines laid when you want them?—We generally manage it. Up to now we have managed to pull smoothly with the different railway companies. There is very little friction. Things could be improved, but that at present is a minor matter, in my opinion.

435. Have you made any move to get the lines extended?—No. Those things that I suggested to the Government were of supreme importance at the moment in expediting the building and repairing of ships. The other is not so urgent, and consequently we did not press it, but we did press this question of the spar wharf and increased dry dock accommodation, and nothing has been done.

436. Before we leave the existing accommodation, do you find that the cranes are sufficient?—We don't find much difficulty. If there is anything we have any doubt about we send it to the one-hundred-ton crane.

437. That is not movable?—No. Personally, I think there is one thing urgent in connection with the crane system, and that is that we want a ten-ton travelling crane on the dry dock. At present we have an antiquated affair that you manipulate by hand. There is a great need on the dock of a ten-ton crane that would travel.

438. That would be for your authority to provide?—Well, possibly. To provide it now would be rather an expensive item, and as we have got on up to now without it, we do not think it would be a time to expend money in purchasing it unless the Government

Colonel GRIFFIN—continued.

would come in and help. If they are prepared to contribute, I am prepared to recommend the Board to get it, if we can get it.

439. With regard to the improvement of the existing graving dock, what value would any Government Department get out of any expense they went to?—They would get as much as they get when they give 40 per cent to the various shipbuilding companies to extend their yards.

440. In that case the money is a loan and the interest paid?—No, sir, it is not. I think where there is an extension and improvements to existing yards the Government advance 40 per cent of the outlay. My opinion is that it is a 50 to 40 per cent arrangement.

441. In regard to the tunnel, I notice that there are a number of ferries across the river?—Yes, ferries in name. It all depends on the side of the river and whether there is any Guinness's stout in the adjacent public-house. That is coming to an end, because the lease of these houses is up, and it now reverts to the Corporation, and I have been trying, not successfully so far, to get the Corporation and the Port and Docks Board to join hands and get a modern up-to-date ferry system right down the river—either electrical or motor ferries.

442. With regard to trams, have you taken any steps?—From the tramway, it is practically two miles to the docks.

443. But have you taken any steps?—No, but they would not hear of it. At the present time the tramway company could not do it because they have not got the rails. It takes the tramway company all their time to repair their lines without extending them.

444. What about motor buses?—There is no reason why there should not be a motor bus service. Lord Pirrie has been approached recently about that very thing. I think the shipbuilding firms and the workmen have both brought Lord Pirrie to see that something should be done, and in this way make better time be kept in the various yards.

Mr. FIELD.

445. I understand you are in favour of the extension of the railway on the north side to the Alexandra Jetty?—I am.

446. And also of a railway on the south side?—Yes.

447. And a dry dock, a tunnel and a bus service?—Yes.

448. You want greater facilities for the loading and unloading of vessels?—I do.

449. Could we not arrange a visit of this Committee to the port as a sort of *visu jury* in order to get a better idea of the position of affairs?—I would be very pleased to place my services at your disposal if you think well of coming down.

Chairman.

450. I think Mr. Field's suggestion a most excellent one, and I am sure we will carry it out when we return to Dublin.

Mr. HOSKINS.

451. Perhaps, Alderman Moran, you would put in some information relating to your circumstances as a Port Board, the kinds of your borrowing powers, your comparative position in reference to other Harbour Boards in connection with their borrowing powers, and all other facts, making it clear if there are any peculiar disadvantages in the case of Dublin?—As regards our circumstances, I can give you that now.

Mr. KESTING.

452. I think it would be interesting if you did make a few observations?—Perhaps it would be better if I supplied the information later on.

Chairman. Thank you.

Mr. E. SHACKLETON, Barrow Mills, Curlew, representing the Irish Industrial Federation, called in; and examined.

Chairman.

Chairman—continued.

453. I suppose, Mr. Shackleton, you have read the Minutes of Reference to this Sub-Committee?—I only see it in the newspapers.

454. It has been appointed to investigate and report upon facilities for transportation offered by the canals

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Mr. SHACKLETON.

[Continued.]

Chairman—continued.

nected with these things?—I have read most of the Reports, Sir.

525. I suppose, speaking generally, you have a fairly good knowledge of the transport by canal?—Yes. My evidence would refer chiefly to the canal. I know something about the ports of Dublin and Waterford, but I would prefer to confine my evidence to inland navigation because I know something about it.

526. We would be very glad if you made a statement to us on it?—The system of which I have most experience is the Grand Canal. The Federation that I represent are of opinion that it is undesirable to have the canal controlled as it is at present. They believe that there can be no efficient working of the Grand Canal system unless some form of control is established different to that which has obtained in the past. The last Commission in their Report—on page 64, I think—expressed the view that we held very clearly and very briefly. They say: "In accordance with the opinion expressed in our former Report, we recommend that the controlling authority should not become carriers on any waterways." And the general opinion, I think, endorses that view, because we consider that a great part of the troubles we suffer from arises from the fact that the controlling authority in the Grand Canal is the Grand Canal Company itself, which, in the first instance, owns and absolutely controls the waterway, makes its own by-laws and regulations, and also owns a considerable fleet of boats, slightly more than half the boats working on the system. The canals all over the country were practically made, as you will find, out of public money, and under the circumstances it seems rather hard lines that the public should not have the benefit of it to the full extent. The canals have to a great extent come under the control of private owners, and the position of the Grand Canal Company at present is rather a peculiar one. The position is peculiar because the Grand Canal Company would do better, as a purely dividend-earning corporation, if it did not work boats or own a canal at all. It could do better without owning the waterway. In the Report I have referred to it was shown that about half the number of boats trading on the canal are privately owned boats. Therefore the Grand Canal boats and the privately owned boats, when freight is slack, are really competing boats for traffic. Though that may appear at first sight to be a good thing for the public—and it has been sometimes—the result has been that the public have used the privately owned boats. The most important one is made of them, except in the case practically of Messrs Guinness and the allied industry of malting. Some people appear to be able to get what they want from the Grand Canal Company. That brings me to another point which we consider very undesirable. It is almost inevitable when a big concern like the Grand Canal and the Harrow Navigation is in private hands that a man who has control will not be nearly as generous to people who are not his friends as he will be to those who are. There is a widespread feeling that there is favoritism. I can give you chapter and verse if you wish it.

Mr. Keating.

527. I think you ought to!—It opens up a very difficult question. I am quite willing to give chapter and verse.

Mr. Hansen.

528. I hope no libel action will arise out of the sittings of this Sub-Committee!—The feeling is widespread that there is favoritism. Now I am also in the difficulty that it is very hard for anybody—

529. If your allegation is put on the record, we shall have to ask the representatives of the Grand Canal Company whether it is so or not, and that may raise further difficulties?—I was going to give one instance of what I regard as favoritism, and in doing so I am in a very great difficulty. I am in business myself. The difficulty that arises is that it may appear to the public that I am here to air my own grievances. It is, however, inevitable that I should give you a personal instance, but I cannot tell you the facts about other people's business as I can of my own.

530. Do you think your own case would be typical?—Yes, and I would prefer to give it.

Chairman.

531. We don't press you to give it, but, if you feel like giving it, we shall hear you?—I only stop at the point where you will excuse it is favoritism. I have a mill at Carlow, and the distance to Carlow, I think, from the harbour is 50 statute miles. I am charged a toll on my boats of 2s. 6d. per ton—toll, not freight. Another miller, at Portarlington, is charged a smaller toll—nearly 50 per cent. less per ton-mile than for a longer distance.

Mr. Hansen.

532. How far is Portarlington from here?—It is two-thirds of the distance, and the toll is only a fraction under 50 per cent. less per ton-mile. Why should that be? Carrying a longer distance is cheaper per ton-mile.

Chairman.

533. Have you many locks to go through?—Yes. We have got to run over the same system for three-fourths of the distance.

Mr. Hansen.

534. What is the Portarlington toll?—I am sorry I have not the figures with me. I think it is 1s. 6d. or 1s. 3d. The Canal Company won't dispute that statement in regard to my tolls. I want to know why it should be so, and I have never been able to have any answer. I can assure you that that feeling about favoritism is widespread, and you will also find that there is a very great difficulty—the Royal Commissioners were up against the same thing—in procuring evidence to show that there is favoritism, and I have made up my mind that I will take the consequences if necessary.

Chairman.

535. I understand your idea is that more trade might be done on the canals if there was a better rating system?—Yes. I will give you a very simple concrete instance. I have again to refer to my own firm. Naturally, I could not know this about any other firm. We were paying the Grand Canal Company no less than £700 a year tolls. The Chairman of the Company told me that the tolls were practically all profit. The locks have got to be there. They have abundance of water, and the lock-keepers have to be kept. The opening of a lock a hundred times a day or only once a day cannot add to the expenses. That is admitted. I went to the Canal Company myself some years ago with a proposition. I said to them, "We are paying you so much a year—it was nearly £700—and I can see my way to do very much more trade if you reduce the tolls. Take the last three years or five years. I will guarantee the toll, and I am certain we will be able to do more." They turned my offer down. Is there any conclusion possible but that they don't want traffic? That is a fact that the Canal Company will not dispute—that that proposal was put to them. I said to them, "If it's heads you win; it's tails you don't lose. Will you take it?" The chairman of the company had previously told me that the tolls were all profit, but I could get nothing out of them. I submit that that leaves us in rather a hopeless state. There is a great intermediacy in dealing with traffic. Since the company got boats on the river they began to put up the tolls. Then, with regard to the treatment of national interests, I have a very good example. The Carlow Gas Company is naturally a large user of coal. They are on the canal bank, and have a canal siding. For many years they have had to get all their coal by rail, and, in spite of the great difficulties in reference to railways at present, I saw a train load of coal for the Gas Company, which, as I have said, has a canal siding.

536. Where did it come from? Do you know?—Dublin.

Mr. Field.

537. Do you say the coal came from Dublin?—Yes. There was a train load of coal for the Gas Company—up to eight wagons—and when it reached Carlow it had to be carried almost a statute mile from the railway station, while the Gas Company had a canal siding. If you ask the Gas Company why they get the coal by train instead of by canal they will tell you they had to do it. Brown and Crosswell's mills are also on the canal bank, and they get all their stuff by train. They are on the river. It is a canalised river.

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Mr. SHACKLETON

[Continued.]

Mr. Field—continued.

river. We are in the same position. We are on a canalised river.

Chairman.

536 Is there any other point you would like to deal with?—We wish to point out that the Barrow was bought by the Grand Canal Company in 1864, and it has been neglected ever since.

Mr. Field.

537 That is right?—And we submit that it is not fair for the Canal Company to advance the argument now that they would have to spend a large amount of money to put the river into proper order, because the present condition of the river is the result of this neglect for 54 years. At a weir immediately above Carlow there is a most typical instance of neglect. There is a by-wash on a little bit of the canal. Two coagulation-stones were loosened some years ago. Ten shillings then would have done the work. Now it would cost £25, and that is the same system that is continued all through. On that part of the system, owing to neglect by the Canal Company, we are now compelled to shorten our load very considerably all through the summer, and in the winter time we suffer very much from floods silting up, and at various parts of the river they made the current faster at certain points. Then, with regard to the general management of the Grand Canal Company, we submit that the controlling voice in the Grand Canal Company for many years has been in the hands of gentlemen whose chief occupation is connected with the Stock Exchange. They cannot obviously be expected to know anything about the management of a carrying company, and it is undesirable for the development of the country that it should be continued. There is one other interesting point I would like to mention. If you take a map of the four mills of Ireland, you will find that all the inland mills that had canals to serve them were able to hold on.

Chairman.

540 Is there any other point you would like to refer to?—I think I have told you all about the rates.

541. Who fixed them?—There is a maximum toll and freight. The other freights are fixed by the Grand Canal Company.

542. They can fix their own rates provided they don't exceed a certain figure?—Yes. A very high maximum has been fixed by Act of Parliament.

543. Is there any tribunal to which you can appeal?—I never heard of one.

Mr. Hansen.

544 You have got the Railway and Canal Commission?—I never heard of it.

Mr. Field.

545 That would be a very costly tribunal to appeal to. In the case of the Dublin Port and Docks Board it cost us £5,000 to appeal to the Railway and Canal Commission.

Chairman.

546 Mr. Shackleton, are the rates on the canal the same as the rates on the railroads?—In some cases they are cheaper, in others dearer, but they practically run fairly well together. As a whole, they are not cheaper.

547 Do you supply much stuff from your mills by canal?—We have to get in all supplies from Dublin. We send a good deal of stuff out, north and south.

548 By canal?—Yes.

549 Do you find that the rates between Dublin and Carlow enable you to do business?—Until comparatively recently our great difficulty was to get boats.

550 Then you got your own?—Yes, because we could not get boats at all. The Canal Company has repaired all their boats, and there is a very large fleet of the company's boats.

Mr. Field.

551 Are you aware, or is it a fact, that there is an agreement between the Railway Company and the Canal Company?—Yes; it is a matter of public knowledge.

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Mr. Field—continued.

552 Is it your experience that owing to that agreement the traders are obliged to comply with whatever those gentlemen choose to ask from them?—They have not raised the rates.

553 If you put a bad service by the canal they send you to the railway and mix canal, and it is a case of being between the devil and the deep sea?—That is obvious.

554 You know Mr. Ward of Bagnalstown—he writes saying that now the traffic on the Barrow is nothing like what it used to be?—That is so. It is nothing to what it used to be.

555 I remember, Mr. Shackleton Bagnalstown when I was young, and the tremendous amount of traffic that used to be on the Barrow. Mr. Ward says it is quite different now?—Yes.

556 Is your traffic on you prefer to use the canal to the railway?—We have canal savings; we would not touch it otherwise.

557 Have you any explanation why the Gas Company sends by the railway instead of by the canal when they had a siding on the canal?—They could not get boats.

558 What caused the deficiency in boats?—The tying up of the Canal Company's and the restrictive regulations, which drove the private owners of the river.

559 Are there many boats driven by motor power on the river?—Yes, a large number. We have several.

560 Is it your opinion that the policy of the directors of the Canal Company has practically stopped the traffic?—It has tended to very much reduce it.

Mr. Lindsay.

561 Do you think that by-traders would convey goods better than an organised body like the Grand Canal Company?—Yes; the by-traders can be better relied on to provide boats when you want them.

562 If anything goes wrong, you have more difficulty in dealing with a by-trader than you would have with a statutory body?—Yes; but what I want to convey is that in practice they have been more used.

563 The by-traders' boats?—Yes, because of the difficulty of getting sufficient boats from the Canal Company.

564 Don't take your own case alone. Take the case of goods that go from Dublin to Limerick. They go by the Grand Canal Company's boats?—Yes.

565 It would be an advantage to have an organised system like the Grand Canal Company?—Yes.

566 You would not advocate that the Grand Canal Company should go out of business?—I don't as carriers, but I do advocate that they should not have a controlling voice on the system.

567 You would let them remain carriers?—Yes.

Colonel Griffin.

568 It is before the Railway and Canal Commission that a complaint would be made in Ireland?—Yes.

569 There is no difficulty in bringing a case?—It is very expensive and troublesome, and we are all rather small people.

Mr. Hansen.) Only four sittings have been held since the Department of Agriculture was established in 1891. There was possibly a mistaken feeling that it was useless.

570 Is there any business for the Railway and Canal Commission to do when it comes over to Ireland?—I cannot answer that.

571 You appear here in a two-fold capacity—first as the representative of the Irish Industrial Federation, and secondly in the interests of the users of the canal?—I really appear to represent the Federation, but I had to confine my evidence to the portion I knew best.

572 You and Mr. Shillington together represent the Industrial Federation?—Yes. We think it very important if any reorganisation takes place in the country to develop the canal traffic.

573 When you say that the Barrow, after being taken over by the Grand Canal people, has had 24 years of neglect, what do you suggest—Government interference or State control?—I am afraid there is nothing for it now but State control.

574 Suppose the Barrow navigation and the Grand Canal

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MR. SHACKLETON.

[Continued.]

Colonel Gretton—continued.

Canal were administered on proper lines, would this meet on the property of the district in which they work?—Yes—if properly run it would have been a paying proposition. That is my own opinion and the opinion of many business people.

525 On the Erne there are two sets of rates—rates for those who own their own boats—Tolls.

526 And rates for those who use the boats belonging to the company?—Freight.

527 Is there any discrimination in the fixing of tolls and rates which may be of advantage to a Corporation as against the owner of boats and lessees of the canal?—There are the conditions of the freight

Colonel Gretton—continued.

They have power to do what they like almost. They certainly can do anything that would be necessary to kill the private boats.

528 Is there any instance where boats owned by the company would have a preferential position as a carrying unit compared with a boat owned by you?—Until the control they had every preference they possibly could get. They were allowed to travel at hours when we had to tie up.

529 Your complaint is that when the control was established it was the same people who had control of the canal?—Yes.

Mr. T. A. SHILLINGTON, Castleland Linnen Company, of the Irish Industrial Federation,

Ltd., Portadown and Belfast, Second Representative called in; and Examined.

Chairman.

530 You are also, Mr. Shillington, a representative of the Irish Industrial Federation?—Yes, sir.

531 You have heard what Mr. Shackleton has said?—I have.

532 We would be glad to hear any information you desire to give us?—My knowledge of the canals is connected mostly with the north, around Portadown and Lurgan, especially Portadown. Unfortunately, the entire sewer of Portadown runs into the river, and there is only a fall of about a foot from Portadown to Lough Neagh, a distance of about nine miles, and it is constantly silting up. Notwithstanding that, the longer route by the Lagan Navigation is more useful. There are more facilities and more water. The horse haulage is better organised on that route, though it is about three times the distance of the Newry Canal. Complaints have been made, in regard to the Newry Canal, about the weeds and also about the vegetation on the side. It is never kept clear. Though only about 16 miles to the sea there are 12 or 14 locks. There are complaints of the delay in the horse haulage. At the present time there are only three horses on the entire route, a distance of about 16 miles. The canal enters the Burn about a mile above Portadown. There has been a leakage in the canal, and the case has been known where water has had to be brought down from the top level from the Newry Canal. Of course there is the Ulster Canal. I only know it as far as Blackwater town. It had at one time gone through the Monaghan, but that section has been dined for a considerable time. The water of Lough Neagh, I think, could be pumped up to the head level of the Lagan Navigation, which would not necessitate boats going through with three-quarters of a load in the summer time, as they have had to do. It is only filled by small streams, which run dry in the summer. In the Newry Canal this summer boats could only go through with half loads. I don't know whether it would not be possible to remove the locks altogether and make a deep canal.

533 From Newry to Portadown?—Yes. The locks don't raise the water to such an extent there, and the water would be supplied from the river Burn. There is such a little fall between Portadown and Lough Neagh, I think it is most important that these two canals should be kept up.

Mr. Fidd.

534 Which two canals?—The Lagan Navigation Company and the Newry Canal. I am also in favour of the State owning the canals. I think the condition in which the Newry Canal is kept is a sample of what a private-owned company does. The Lagan Navigation Company has been much more successful.

Chairman.

535 When was the Lagan Canal built?—I cannot say. Some hundreds of years ago, I think.

536 Do you think that trade could be encouraged if the canals were kept in better repair?—I do, and not only in Portadown but in Lurgan and the districts and the towns along there if there were more facilities. The people also complain that there are not sufficient tugs to bring the lighters around where they enter Lough Neagh.

537 How do your rates compare with the railways?—I think they are lower. I know no one who can get

Chairman—continued.

coal or corn or wheat by the canal who gets them by the railway. There was a time when they used to bring coal from Belfast to Portadown by canal and cart it back to Lurgan, but I think the railway companies have brought their rates down. I think that is all I have to say.

Mr. Keating.

538 One of the witnesses and yesterday that the transport facilities had been greatly improved by the coming of the Ford motor car.

Mr. Hanson.

539 The point, Mr. Shillington, is whether the development of canal traffic would be affected by the development of the motor service?—It has not done as in Portadown. The motor will take smaller loads than the canal.

540 A different class of goods?—Yes. I know factories will send out different goods sometimes by motor and bring raw materials on lighters from Belfast.

Mr. Keating.

541 The motor service does not affect the larger and heavier goods to be dealt with?—No, those are sent by canal or railway.

Mr. Hanson.

542 Is there much complaint in the North of Ireland as between canals and railways entering as carriers to certain points?—Well, I cannot say.

543 That is to say, do the railways as carriers deliberately adjust rates so as to operate against water carriers?—The canal has helped to keep railway rates down.

544 Do the railway rates sometimes prevent the others having a rate at all?—There is a point at which ordinary business men will take advantage of railway rates over a slower carriage?—The canal rate is lower for coal from Belfast.

545 Take Portadown in relation to Belfast. Is any dissatisfaction expressed by the traders of Portadown in connection with the relative rates between these two places?—They complain about the railway rates.

Mr. Lindsay.

546 You said that it would be a good thing if water were pumped from Lough Neagh into the upper level of the Lagan Canal?—Yes.

547 Do you know that there is a pumping station?—No. I was not aware of that.

548 As regards this project of directing water from Lough Neagh into the Newry Canal, has an engineer's opinion been procured?—I have never heard an engineer's opinion, but it has been talked about. The people in Portadown are in favour of it.

549 They don't know whether it is feasible or not?—They are of opinion that it is feasible.

550 They have never taken an engineer's opinion on the matter?—No.

551 You spoke of the question of rates by rail and water?—Yes.

552 Do you know that ordinary carriers between Belfast and Portadown on water will only take rough goods?—Yes, building materials and coal.

553 They don't take all classes of goods?—No.

554 There is a waterway there between Belfast and Portadown?—Yes.

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Mr. SHILLINGTON

[Continued.]

Mr. Lindsay—continued.

604 If the boats won't take the goods, is it not the fault of the people not to organise services of their own if they are dissatisfied with the railway rates?—There are no warehouses in Portadown, for instance.

605 Jointly you might, if you get together, provide a service and get goods both ways?—Yes.

606 You have not done that?—No.

607 Do you think you ought to put your complaint against the railway company in a tangible form by doing that?—Yes.

Mr. Field.

608 With regard to the points raised, as there are any objection on the part of the canal owners to individuals to run motor boats from Portadown to Belfast?—I don't think so.

Mr. T. F. Nooner, J.P., Member of the Board of Control of the Royal Canal, called in; and Examined.

Chairman.

609 I understand, Mr. Nooner, you are a member of the Board of Control of the Royal Canal?—Yes, Sir.

610 I think you know the Terms of Reference of our Sub-Committee?—Yes, I have read them.

611 We are anxious to get your evidence on the working of the Royal Canal, and we would like to know whether, in your opinion, any improvements could be made?—I shall be glad to give you any information I can, Sir.

612 Would you first of all tell us something about the Board of Control and what their functions are?—Their functions are more ornamental than useful. I was appointed 10 or 12 years ago after a stiff fight to manage the canal from the condition in which it then was. Perhaps I may state my connection with the canal. In 1894 we could get no satisfaction from the traders in connection with the working of the canal, and I went to London and was introduced to Sir Courtenay Boyle, Secretary, Board of Trade. I put the whole case before him, and showed how this magnificent waterway of 61 miles was worked and described the towns on it. I pointed out the great service it would be to the country if properly developed, and he was so strongly impressed by the case I made that he appointed the late Major-General Hutchinson to come across here to hold an inquiry, and to inspect the canal from Dublin to Trencherry, the outlet into the Shannon. I was deputed by the traders to accompany him and Mr. Hamilton Smith, the Engineer to the Midland Great Western Railway Company of Ireland, came with us. We inspected the canal. You will find that in his Report Major-General Hutchinson verified the complaints of the traders. An order was made by the Board of Trade that the Midland Company should forthwith take the necessary steps to put the canal into the condition it was when they purchased it in 1846. I think no notice, however, was taken by the railway company of these instructions. They treated them as absolutely non-existent, and I then again brought the matter under the notice of the Board of Trade, and again in 1896 Sir Francis Martin, C.B., came across and I accompanied him for four days on the Royal Canal. We discovered that nothing whatever had been done by the railway company in the meantime. In his Report Sir Francis speaks of the extraordinary manner in which Major-General Hutchinson's Report was treated. We discovered that the Royal Canal Company had been selling the water—that water was sold for manufacturing and other purposes—contrary to the Act. We found that all the water-gates were leaking, especially at Spencer's Dock. That was slushed and some other repairs done, but the Board of Trade then threatened to come in themselves and to carry out the work as they were entitled to do under the Act transferring the canal from the old Royal Canal Company to the Midland Railway Company. They had the power to stop us, if the canal got into disrepair, and have the repairs carried out themselves, a fund having been retained from the original sum paid in Government security against that. We could not discover where that money was—whether it was expended or not. The Act of Parliament had it down that this money should be retained.

613 Retained by whom?—By the Board of Works. I then discovered that there was a Board of Control in existence, but that it had been allowed to fall into abeyance for thirty years. When the Board of Control

Mr. Field—continued.

609 Are there any private-owned boats run?—Yes.

610 Are you of opinion that the canals are worked in the way they ought to be?—No.

611 Therefore you are in favour of State ownership?—I am.

612 Because private owners are practically not responsible to the people and so do not give the public the facilities to which they are entitled?—That is so.

613 And as regards the class of goods carried by canals, they don't come into competition with the canals?—No, with the railways.

614 They cannot deal with very heavy traffic like the canals?—No.

Chairman—continued.

was constructed there were on it three members of the Board of Works—Sir George V. Holmes, K.C.V.O., Sir Geo. Stevenson, and Mr. Philip Hanson—who was appointed within the last few years, and also Mr. Ross and myself representing the traders. We had two meetings in twelve years. At the first of these meetings we were undoubtedly and unquestionably able to get the railway company to do a good deal, at least, in the way of cleaning and sinking and clearing up the harbour. There are very few harbours. At the present moment this is as fine a waterway as you can get in the world, and if it were only properly steam-dredged twice annually it would then be in better condition. It is a crying scandal that the development of the trade of the country should be hindered by having the canal in its present condition.

Mr. Keating.

620 Whose fault is that?—The Midland Great Western Railway Company's. It was handed over in 1865 to the company.

621 By whom?—They purchased it, but I understand there is a large Imperial lien on it still. The company constructed a large portion of their railway running parallel to the canal, and utilise canal property for this purpose. Then they started a number of boats on the canal for trading, and having killed the ordinary hack-boats, they withdrew their own boats. A great portion of the hack-boats were driven out of the trade. The hack boat men paid toll to the railway company. I think they paid 1s. 10d. or 2s. 6d. a ton. Under the Railway and Canal Traffic Act there was further inquiry fixing the maximum tolls.

Mr. Field.

622 The hack-boat men are the private owners?—Yes, the by-traders. They have been largely driven off the canal by the action of the railway company.

623 And the traders have suffered in consequence?—Yes, because the railway company have now a monopoly. The canal was a splendid competing means of getting hold of traffic from Dublin and taking back agricultural produce to Dublin. If you look at the map you will see that there is a passage through the very centre of Ireland, and at the present time, from the train you notice immense tracts of land along the canal devoted to agriculture. If the canal were properly worked the result would be that all the agricultural produce would be taken by it to the city at a very reasonable rate, and coal saved that is now consumed in carrying it by rail.

624 It would be taken by the hack-boat men?—Yes.

625 And the railway company don't do it?—The railway company simply want to kill the traffic on the canal. They have tried to do so in every possible way. If this Sub-Committee could recommend that the canal be placed in the hands of some independent body or handed over to the county councils of the five counties through which it runs, it would be a very important thing. In fact, that very suggestion was made here before the Canal Commission. There was another order made requiring the railway company to improve the condition of the canal, on a complaint that nothing was being done.

626 What

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Mr. NOONEY

[Continued.]

Mr. Hanson.

626. What order was that?—1906. The Treasury communicated with the Board of Works, and they again appointed Mr. Dudley Fletcher to again inspect the canal for them. In his report Mr. Fletcher verifies everything the traders had stated. I was asked about the functions of the Board of Control. I received this communication in my hand, and my esteemed colleague, Mr. Ross, received it as well. That is the only communication I can find in reference to the Board of Control.

Mr. Hanson.

627. Tell us something of the duties you are expected to discharge?—I, of course, naturally expected that, being appointed to what you would probably call an executive capacity, that we would be in a position to meet at reasonable times, and, instead of being obliged to place this matter before a Commission, that we would have sufficient powers, as we have unquestionably under the Act of Parliament, to deal with the canal ourselves.

628. That is, the three men in the Board of Works and Mr. Ross and yourself?—Yes.

Mr. Field.

629. Why not exercise your powers?—We are not called in to exercise them.

630. You should expose the matter and appeal to public opinion?—I may say that the engineer of the Midland Railway Company, Mr. O'Neill, who is a very able man undoubtedly and unquestionably, did his best, and, so far as he was permitted, he tried to carry out any works I wrote to him personally about. When I found there were no improvements made, I generally wrote to Mr. O'Neill about them, and pointed out that such and such a thing was in a bad state. He had undoubtedly done his best in the matter.

Mr. Keating.

631. That is as a matter of grace?—I don't know exactly. As a member of the Board of Control, I wrote to him and pointed out that certain works should be carried out as soon as possible, and I noticed he did what I asked. I would not call that an act of grace. I think I was acting in an executive capacity at the time. I drew attention the other day to the very serious condition of Mosstown harbour, where a thousand tons of timber is lying, and they cannot get the boats within measurable distance. The result is that an English contractor is put to great expense and trouble. I wrote to the railway company about the matter, and received in reply only the usual acknowledgment. I wrote to Sir George Stevenson, drawing his attention to the matter. That is not the way a Board of Control ought to act. I have to take an oath, and am debarred from holding stock in the Midland Great Western Railway Company. My position as a member of the Board of Control is most ridiculous and extraordinary.

Mr. Field.

632. Are not there a great many extraordinary things in Ireland?—Yes, but nothing more extraordinary than the Royal Canal.

633. Everything Royal in Ireland is extraordinary.

Mr. Keating.

634. The point is this. You have asserted that you, as a member of the Board of Control, are dissatisfied at the way that the Board of Control is called. We want to know who has a right to call the Board of Control, and why is it not called?—The calling of these meetings, so far as I understand, is done by the secretary of the Board of Works, who is the nominal secretary of the Board of Control.

635. Why has the Board of Control been called together only twice in 12 years?—I can't say.

636. Can you give any idea?—No, except that it is like everything else in this country; there is no system or order attached to it. I cannot form any opinion. I am willing to attend any meeting any time I am called on. So far as the supply of water for the canal is concerned, that is a very important matter. They conserve a large portion of water in Lough Owel, with the result that there are millions of gallons of water available for the canal.

Mr. Keating—continued.

637. Who did that?—The railway company. They are the owners of Lough Owel so far as the waters are concerned. So far as water is concerned, there is an ample supply. It originally supplied the north side of Dublin. The suggestion was made by Sir Francis Marnham. There is one mile of the canal sided at Broadstone. It is used as an inclosure ground for animals.

Mr. Hanson.

638. It is the terminal section of the canal?—Yes. Up to some years ago it went across to where the warehouses are. The railway company got an Act of Parliament and took up those warehouses. What had been suggested at the two inquiries was that this section at the Broadstone should be properly sunk and cleaned and left as a distributing centre for the north side of Dublin. This canal passes through the best peat districts in Ireland. In my own memory I saw thousands of tons of turf collected there. Indeed, the business cannot get it up there because the canal has silted up. In order to unload the boat they are obliged to go to the Spencer Dock. That is the only point on which boats on the Royal Canal can be unloaded. There is a very large traffic in what is called bog ore. You know what that is. There is one very large peat bog back at Killyman, and it is absolutely covered over with bog ore. It is very largely exported for the purification of gas.

Colonel Greville.

639. What is bog ore? It is peat of a clayey nature creasing a large amount of iron. In former times gas was purified by lime. Now it is purified by bog ore. The Dublin Gas Company take up as much as they can get of it. If it is wanted here, as it is largely wanted, they are obliged to go to the North Wall and cart it up. The same with peat, and bricks, and manure, and potatoes. All that is necessary is to simply sink the canal at the point I am speaking about near the Broadstone, as has been ordered by two Commissions—dredging the bed thoroughly. I cannot understand why the railway company don't do it. Mr. Field can tell you that the railway company attempted to bring into Parliament four years ago a Bill containing a clause empowering them to close and fill in that section of the canal. They tackled it on, not to anything in connection with Dublin business, but to a Bill for the extension of the Athlone Railway. I discovered what they were trying to do, and wrote to Mr. Field and asked him to block it. He did block it, and the railway company were obliged to withdraw the clause. That shows why the place is allowed to be silted up. It is absolutely necessary that that branch should be free for the distribution of what is carried by the canal. At the present time this section of the canal is not alone a danger but a disgrace to any railway company.

Mr. Keating.

640. Before you proceed further, I would like to mention that Mr. Owen, of the Local Government Board, gave evidence here yesterday, and he said that the transit problem in Ireland was likely to be solved by the motor car. In view of that statement coming from such a responsible man—

Chairman.

641. I think we had better go on with the direct examination?—I will answer Mr. Keating by saying that it would be utterly impossible to bring loads of 50 tons of manure from the centre of the country by motor cars. You would have to make a number of new roads. You have a water route made, and why not use it? Dealing with the canal at the Broadstone, I would suggest that the Committee would take action. It is absolutely necessary. Before we leave that small section of the canal, I would point out that these huge concerns at the opposite side are canal property. The railway company have taken them over, but they have given nothing in lieu of them. If the canal is to be developed, it is absolutely essential that storage accommodation should be provided. The railway company say "We have opened the Spencer Dock and we have a shed there," but what are they receiving tolls for if they are not to provide suitable accommodation and other suitable facilities? The railway company have

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[Continued.]

(Address—continued.)

a galvanised shed, and the hackmen can use it if they wish, but the company will not be responsible for the safety of the goods put into it.

642. Do you say the railway company is not responsible for the safety of goods in their own sheds?—Only railway goods. What has really helped to kill the canal is the divergence of the traffic from the centre of distribution near the Broadstone.

Mr. Keating.

643. It seems to me that the net result of your evidence would show that the interests of the railway company are directly in conflict with the interest of general traffic?—That is so, and I think I can go further and tell you that if you are a trader on the canal every possible obstacle is placed in your way to prevent you getting any facilities. For instance, I discovered that a considerable rebate was given on the railway rates for coal for the purpose of diverting the traffic from the canal.

644. Do you mean to say that the coal was taken at a lower rate by the railway than by the canal?—Yes.

Mr. Lindsay.

645. That is illegal?—I have it here.

Colonel Gifford.

646. Who fixes the canal rates?—The canal rate was fixed by a Commission that came across specially for the purpose.

647. The Railway and Canal Commission?—No. Between 1905 and the present day an English judge came over and fixed it.

(Chairman.)

648. Are there lower than the rates scheduled in the Act?—It is only the tolls that are fixed. He could not fix rates. The rate on coal was 4s. 6d. a ton, but, in order to get under that, on the railway rate of 4s. 6d. or 4s. 3d. a rebate was granted, which of course would divert the entire traffic from the canal and did so as a matter of fact divert it or a large portion of it. That was one system of killing trade on the canal, and no man helped to do that more than the late manager, who took very little interest in the canal. Is there anything else I can say?

649. We will ask you some questions?—I shall be glad to answer them to the best of my ability. After we turned on this inspection we discovered that water was sold to various houses at Blanchardstown. We discovered also that a Grand Canal boat could not trade on the Royal Canal, and that is, of course, a great loss. There are only two places on the canal where Grand Canal boats cannot pass through—one at Killinacree Lock, which needs widening by about 10 feet, and the other at Moanabur's, a mile away. The expenditure would be about £500.

650. From what you now say there is no through traffic between the Grand Canal and the Royal Canal?—No. There cannot be. I have shown you that that difficulty could be very rapidly remedied. There are only two points in the canal where improvements should be made—one outside Dublin where there is a large flow of water coming down. It is about two feet too narrow, and very little expenditure would widen that, and if you had another lock widened at Killinacree the connection between the two canals could be made. The Grand Canal Company would be glad to trade on the Royal Canal if these two points were remedied. I say that that waterway must develop the country. It is going through one of the finest parts of the country that we have.

651. What kind of through traffic do you suggest from the Royal to the Grand Canal, or vice versa?—A very large amount of bricks are made on the Grand Canal, and they are very extensively used in this country. They have at present to be loaded into the Great Southern wagons and conveyed to Clara and brought to the Midland line and distributed here. They go as far as Sligo. All that difficulty could be got over if the two canals were connected. There is, of course, a large traffic in peat, and Mr. Sherbrook, who has very large works at Rahon, has to get peat litter loaded at either Tallamore or Clara and conveyed over

(Chairman—continued.)

two railways. Traffic of that description would be more convenient on the canal. I have a communication here to which I would like to draw the attention of the Committee. It is dated 6th September, 1918, and deals with the proposed sale of the Royal Canal property at Moyvalley, to which both Mr. Ross and myself strongly objected. I got a letter from the Lord Lieutenant stating that he considered that the Railway Company ought to be allowed to sell this land—the Royal Canal property. Mr. Ross came to me, and we refused to allow one foot of the canal property to be disposed of. What do we find now? Here is the letter:—

51, St. Stephen's Green, E.,
Dublin, 6th September, 1918.

Sir,—I am directed to acknowledge receipt of your letter of the 10th August in reference to the lands forming part of the Royal Canal property near Moyvalley, which the Railway Company are seeking permission to sell. The objection expressed in your letter to the sale of these lands on the ground that they might hereafter be necessary for developing the traffic on the canal would be fatal to the company's proposal if the situation and level of the lands were such as to make them likely to be used hereafter for the improvement of the navigation. A report on the subject has therefore been obtained from Mr. Dudley Fletcher, M.L.C.E.I., the Superintendent of the Shannon Navigation, who was formerly Engineer to the Grand Canal Company. Mr. Fletcher has inspected the land in question, which he finds to be at a lower level than the trackway and divided from the canal bank by a drain. He reports that it has become merged in the lands of the adjoining occupiers and has no definite boundary dividing it from them. In his opinion the land will not be required for navigation purposes now or at any future date, and in any case from the difference in level between it and the top of the canal embankment it is not suited for canal purposes. In view of this report you may perhaps be disposed to reconsider your objection to the sale of the lands.

I am, Sir, your obedient servant,

(Signed) GEORGE E. SHANAHAN.

Mr. Ross and myself wrote a joint letter confirming our previous letter objecting to the sale of canal property.

652. Did you ask to have a meeting of your Board?—It is not my province. Sir George Stevenson is Chairman.

Mr. Lindsay.

653. Any member of the Board could ask that a meeting be called?—Yes, but it seems inadvisable that a member like me should request the Chairman to call a meeting.

(Chairman.)

654. Mr. Ross and yourself are two out of five?—The idea did not strike me. In further reference to that communication, I may say Mr. Ross lives at Moyvalley House. He is within a very short distance of this place. He inspected it as late as last Friday and discovered a road leading from the village right down to this very point, and the land that is proposed to be sold he points out would be most suitable for the erection of stores.

655. Is the land not sold?—It may be sold, but as far as we are concerned we have given no authority for the sale. If that land was sold by the authority of the Board of Control, probably in 20 years' time Mr. Ward would be voting in Parliament for a further large sum to buy it again. The dredging of the canal is a very important point. The system up to recently of cutting the weeds in the canal is one that certainly a patent would not be necessary for. A man gets on each side of the canal, has a rope, and he attaches to it three ordinary sythes and plays a saw-saw, but nothing dangerous but the top of the weeds. It is a most ridiculous thing.

Mr. Hennes.

656. It is an ancient arrangement on the Royal Canal?—Yes. They have a steam dredger ordered by General Hutchinson and ordered again by Sir Francis Martin. They have got that, but I have not seen it in our district for a many a long day.

657. Where

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Mr. NOOSEY.

[Continued.]

Mr. Lindsay.

657. Where do you mean?—Mullingar district. Is there any other point, Mr. Chairman, that you wish me to give evidence on?

Chairman.

658. I would like to ask you one or two questions. Your canal tolls are fixed up to a maximum by Act of Parliament?—Yes.

659. But your canal rates—that is, the cost of carrying—are a matter arranged by a Commission that came over here?—No, the tolls were arranged by the Commission. They were in existence, but they were revised then to meet a different state of affairs. I think there were a series of tolls, and I believe these were cut down to two in order to facilitate the bye-traders.

660. 4s. 6d. a ton for coal is the rate?—That rate is made up first of the toll, then of the capital expense of the bye-traders—their boats, horses, and their own expenses and the expenses of loading and unloading.

661. The Royal Canal does not carry traffic?—No, they don't.

Mr. Lindsay.

662. The 4s. 6d. is to where?—Dublin to Mullingar. I am taking a 50-mile section of the canal.

Chairman.

663. There are two points in the Royal Canal that would permit of boats entering from the Grand Canal?—Yes.

664. Were they originally made in that shape?—They were.

665. Has any estimate been formed as to what it would cost to set up that route?—No.

666. I never remember, Mr. Noosey, that question of through traffic arising as a definite proposition in Ireland?—No, I don't think it has. It is most important.

Mr. Keating.

667. About the through traffic, do you think there is any value in that?—I decidedly do. I also believe that there is a great future before Irish waterways if properly developed and efficiently worked.

668. Do you suggest to the Sub-Committee that if powers were available for establishing a through traffic it would be of value to the community?—I do. I can speak from personal knowledge. My firm at one time required a very great quantity of bricks, something like 200,000, made at Benagher, and I tried to see if they could possibly be got by the through route. The object of trying it was to endeavour to get a route as competing for this particular contract and which would enable us to be in the running for the contract. I discovered then that the boats could not be got through. If we had been in a position to get the bricks by canal we would have got that order.

669. If the through traffic were established would it be to the national interest?—Yes, because water traffic of any kind must naturally be for the public benefit.

670. That is a very general observation?—I have not gone into the thing.

671. You object to the method of calling the Board of Control?—I do.

672. Can you suggest any better method?—Not at the moment. It would require to be considered, but I think if the Commission would kindly see the Act under which the Board of Control were brought into existence, they would find that there are very large powers in the hands of the five members of the Board, if the Board were properly recognised.

Mr. Hanson.

673. May I ask if the Midland Great Western Railway Company has a representative here?—I understand so.

674. That is perfectly fair. It is only fair that they should have a full opportunity of replying to any statement made regarding their connection with the Royal Canal. Do you think, Mr. Noosey, there is anything else in the whole world under the régime of modern railway carriers like the relations between the canal and the railway company?—No, it is a scandal.

Mr. Hanson—continued.

675. Upon whose shoulders does the responsibility rest?—Wherever sold the canal to a competing railway company originally.

676. The Midland Railway Company is not entirely responsible?—Of course, it is not responsible in a sense, but then they took up a certain obligation, guaranteeing to keep the canal in the same condition as it was when they purchased it. They have not done so, and it is on their shoulders that portion of the responsibility rests.

677. Efforts were made as soon as you became a member of the Board of Control to get the Midland Company to observe its obligations?—Yes. I have told you already that as far as Mr. O'Neill, the company's engineer, is concerned he has done all the work he could possibly do.

678. He has not fulfilled the entire obligations. He has not carried out the orders of the Board of Control. Apart from the obligation on the engineer to make certain repairs, have you, as a member of the Board of Control, tried to get anything from the Office of Works which is responsible for getting the railway company to discharge the obligations?—On every occasion on which complaints were sent to me dealing with the condition of the canal, I invariably communicated with the Board of Control, who, in reply, sent me letters saying that the matter would receive attention.

679. Did you ever suggest to Sir George Stevenson that there ought to be regular meetings of the Board of Control held?—I did not.

680. With reference to the Broadstone branch of the canal to which you referred, can you look back on the time when it served a purpose?—Yes.

681. Did it justify its existence in those days?—Yes, just as much as it does to-day.

682. I gather from your evidence that the Midland Company with malice prepense closed it up?—They allowed it to be closed up.

683. How?—For want of cleaning it as they are bound to do.

684. Did anyone take sufficient interest in the canal to see that it did it?—It is quite evident that I cannot possibly look at the canal from one end to the other.

685. This is a very important evidence. I would like to fix the responsibility on somebody?—Until I took this matter of the canal up in 1895, no one took a scrap of interest in the canal. It was allowed to remain there for the railway company to deal with it in whatever way they wished. This section of the canal here when it was cut off from the stores on the north side is really a sort of cul de sac. The responsibility of having the canal in its present condition rests with the railway company, and they should be made clean it up.

686. Is it not true that the tendency of the trader from Mullingar was to use the railway?—That is wrong. I can speak for my own firm. We tried to carry all our heavy stuff over the canal, and we would do so to-day if the canal was working, because it is more convenient. Your coal, for instance, does not get mixed up. Your best goes down to your stores, and there is no difficulty in getting the stuff in.

687. Are you doing that?—No, because we could not get coal. So far as we can get coal we utilise the canal for that purpose, and have done so within the last three months. As I was coming up to-day a large barge was going down with about 50 tons of coal.

Mr. Lindsay.

688. You are alongside the canal at Mullingar?—Yes, we are.

Mr. Hanson.

689. Give us the history of the accommodation, especially at Spencer Dock?—You would want to see it. It is a curiosity. There is no accommodation such as the railway company is bound to provide by Act of Parliament. They will tell you "there is a storehouse," but they will not be responsible for the stuff put into it by the traders.

690. That is one of the most annoying things I came across for a long time. It is a fact that at Spencer Dock, a public carrying company has established for the accommodation of people who convey traffic by the canal a storehouse with no one in charge of it, and will not be responsible for the goods placed in that storehouse by a consignor?—Not by a consignor, but by

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Mr. NOONEY.

[Continued.]

Mr. HANNAH—continued.

by a by-trader on the canal. The railway company have provided no accommodation in line of the accommodation they have taken at the Broadstone.

691. With regard to property, I gather that you suggest the sale of the land near Moyrally involves the sale of the canal itself. Do you contend that the canal has gone with the land?—I don't, but it strikes me that this land is gone, judging from the letter I have read. Why do they want to sell it, what necessity is there for disposing of it? I will never consent to the sale of one foot of the canal company's property. The railway company have no power to do it.

Chairman.

692. The land in question does not cover the canal?—No.

693. A drain separates that land from the canal?—Yes. It is adjoining land belonging to the canal company. Another thing which is grossly irregular is the practice of allowing gates along the towpaths and permitting grazing.

Mr. HANNAH.

694. Is there at present any demand manifested by traders between Mullingar and the Shannon in favour of the reorganisation of the canal?—Yes, every day I am spoken to about it. Ballymahon is 13 miles from the railway. It is a town of very considerable importance as Irish towage goes. It has a large market and a large fair, and quarter sessions courts are held in it. The canal comes right into the heart of the town, but if the people want a load of four they have to go 15 miles to the railway station, whereas they could have then entire traffic delivered into the town by canal. The same applies to a number of other places.

695. Could you prepare for this Sub-Committee any kind of statement giving the views of the people of that part of the world in regard to the Royal Canal?—Yes.

Mr. LINDSAY.

696. When was that Broadstone branch closed or allowed to silt up?—I cannot give the date, but you will find it in the reports I will leave you. I should say about thirty years ago. It was, I think, altered at the time of the passing of the Spencer Dock Act.

697. You say in your statement that the traffic in 1905 was a decrease on 1888. Do you suggest that the Broadstone branch was closed in 1888?—I should say so.

698. The traffic is infinitesimal?—It has been gradually killed.

699. Is it not a natural evolution that the canal should be superseded by a superior form of transit?—No, because they don't run on the same lines at all. The traffic in coal, manure, ice-berg and Irish timber could be cultivated. I had a complaint the other day from a firm of large timber merchants in Dublin—Messrs. Scott and Co.—regarding a large quantity of Irish timber at Sanna, stating that the trouble was insuperable.

700. The demand for home-grown timber has increased during the war?—Yes.

701. If it hadn't been for the war, perhaps that timber would never have been offered to the canal. I am trying to show you, Mr. Nooney, that there was never any traffic particularly on the Royal Canal. You say it is due to bad management?—Yes.

702. About that question of bricks from Banagher and your complaint that there is no communication between the Grand and Royal Canal, if you look at the map you will see that the best way to take bricks would be up the Shannon by Tarnaherry?—It is not easy to convey traffic on the Shannon. You will see the difficulty of conveying from the point of the Grand Canal at Shannon Harbour to the other canal at Tarnaherry.

703. The Grand Canal boats still run to Carrick-on-Shannon?—Yes; I don't know anything about the traffic on that canal.

704. Did you try to get the bricks by Tarnaherry and not Dublin? I didn't know this point would be raised.

705. I gather that your complaint is that when the Midland Railway Company bought the Royal Canal it was not an absolute sale, and that a certain amount of control was left?—Yes.

Mr. LINDSAY—continued.

706. The Board of Control was established by Act of Parliament?—Yes.

707. It was established in connection with the new Royal Canal?—Yes, I cannot give the date when established.

708. You are criticising the Royal Canal for selling water. Am they not selling their own water?—They are always crying out about the loss on the canal and never take into account its by-products.

709. When the water is sold is it not credited to the canal?—No, to the railway company.

710. These sales would diminish the loss no doubt?—Yes.

Mr. FIELD.

711. Will you tell us who built that canal first?—The unfortunate shareholders.

712. And what did they get out of it?—Some of them ran out of the country and have never been heard of since.

713. They got emigration?—Yes.

Mr. HANNAH.

714. They are mostly building canals in another part of the universe?—It was built as far as Mullingar, and when they finished it there the canal company went into liquidation, and then they were advanced a certain sum of money by Parliament and they made the canal to the end.

Mr. FIELD.

715. You are supposed to be a member of the Control Board?—Yes.

716. That Board has practically no function?—Except ornamental functions.

717. May I ask has your Board of Control ever met?—Yes, twice in 10 years.

718. Is your contention that the control exercised by the railway company over the canal has practically resulted in doing nothing for the canal except destroying its traffic?—That is my view.

719. That is a very serious charge to make?—Yes. The railway company has not kept the canal in proper order as they were bound to do.

720. Do you hold that one of the reasons why the traffic has decreased is in consequence of the railway taking away the boats?—I hold that the railway company when they had boats trading on the canal simply killed the by-traders by competition and then withdrew their own boats.

721. There is no dredger practically on the place at all?—There is a steam dredger, but I don't know where it is.

722. Is it worked?—I have not seen it worked in Mullingar for a long time.

723. Would you be in favour of State ownership?—Yes.

724. Do you hold that if the canal was in a proper condition to carry on traffic, that you would have post and bricks and coal and timber earned on it?—Certainly.

725. Is it your view that that should be done in order to consume coal on the railway?—Yes.

726. Are you aware that the railway company made two attempts to shut up the Broadstone section?—Yes.

727. And that I prevented it?—Yes.

728. And that I earned anything but gratitude from the railway company?—Yes.

729. I hold that it should be contiguous as the natural distributing centre for the north side of Dublin, particularly for bricks?—Yes.

Colonel GREVILLE.

730. Are there sufficient boats on the canal for traffic?—No, quite insufficient.

731. What form of haulage have you on the canal?—Horse haulage only. That question arose some few years ago and the railway company raised an objection to mechanical haulage, that if mechanical haulage was used on these boats passing through the peaty portions of the country that there would be a danger of the backwash destroying the embankments.

732. Have you anything to say about pilfering on the canal?—It is not more than on the railway.

733. Can you say what the charges made for haulage on the canal are?—I cannot answer that question because, as I explained, the boats are all owned by by-traders and no question ever arose as to the cost of haulage. The fixed rate for coal is 4s. 6d. a ton.

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734. Yes.

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Mr. NOCKY.

[Continued.]

Colonel Godfrey—continued.

734. You know what the toll charge is?—Is. 9d. up to 1s. 11d. and 2s. 3d. The 2s. 3d. is for sundries, and the 1s. 10d. is for mineral traffic.

735. An additional charge is made by boat-traders?—Yes.

736. Can you give me a schedule of the canal charges?—I will do so.

Mr. HANSON.

737. We will get it from the Railway Company?—There is one old boat-owner and he would give evidence. His name is James Leach.

Mr. M. F. KROON, General Manager, Midland Great Western Railway Company of Ireland, called in, and Examined.

Chairman.

741. You know, Mr. Keogh, that our duties are to try and find out how the canals of this country can be used for increasing traffic, and I understand you have a statement to make to us?—Yes, but I have only part of it prepared. I am sorry I did not know Mr. Nocky was coming here to-day, as I would have been present to hear the whole of his evidence. I only heard the latter end of it. I don't know whether you wish me to say anything on the general question of railway communication with the ports. I had generally sketched out some observations as regards the railway facilities at the Western ports, and I have dealt with the Spencer Dock, which I wanted to bring under your notice, and generally with the Royal Canal.

Mr. HANSON.

742. I think we ought to have a general statement—it is very important?—I am sorry I had not very much time in which to prepare a statement. This diagram showing the Midland system and the Royal Canal may be useful to you. The Midland Great Western Railway Company operate 538 track miles of railway, and are the owners of the Royal Canal and Spencer Dock at Dublin. The main line of the Company runs from Dublin to Galway (125 miles), with an extension to Chilton (49 miles); the principal branch lines are Mullingar to Sligo (94 miles) and Athlone to Ballina (88 miles), with an extension to Kildale (8 miles). The minor branches are—Liffey Junction to North Wall (5 miles), Clontarf to Kingscourt (43 miles), Kilmesson to Athboy (18 miles), Neshitt Junction to Midferry (11 miles), Buncrana to Clara (7 miles), Attymon to Loughrea (9 miles), Bury Junction to Owen (25 miles), Clonsilla to Killeahandra (7 miles), Killybeg to Ballaghaderreen (9 miles), Clonsilla to Ballinrobe (12 miles), Manilla to Achill (41 miles), and Westport to Westport Quay (1 mile). The greater part of the main line, i.e., the whole distance from Dublin to Galway, with the exception of the sections from Ballinacree to Attymon Junction and from Athboy to Clonsilla, representing 23 miles out of a total of 126 miles, is provided with double track. The principal branches are double as between Mullingar and Longford and Carrigrohane Junction and Sligo (Sligo Branch) and Athlone and Roscommon (Mayo Branch), the remainder being single track only.

743. Would there be any difficulty in making a double line from Ballinacree?—None whatever. The ports served by the M.G.W. Railway are Dublin, Galway, Sligo, Westport, and Ballina. In addition to the established ports, sites for a Transatlantic port have been suggested at the following places within the district served by the Midland Railway, namely—Barna (Galway Bay), Killybeg Bay, and Blackhead Bay. The approximate distances by rail from the several ports and proposed ports enumerated above to Dublin and Belfast respectively are—in each case I have given the shortest mileage—

Port.	To Dublin.	To Belfast.
Dublin	—	113
Galway	125	191
Sligo	134	135
Westport	161	221
Ballina	166	206
Barna (extension railway to be provided)	130	196
Killybeg Bay (ditto)	177	230
Blackhead Bay (ditto)	219	271

Chairman.

738. We are very much obliged to you. There is one question I would like to ask. Mr. Field spoke of bringing up post by canal?—Yes.

739. It is bulky and light?—Yes. The boats would take about 30 tons of post, and they would not be too highly built up to pass under any bridge. There is only one bridge that might be a bit low, but it would not interfere with the loads.

740. There are a lot of turf bogs along that canal?—Yes.

Mr. LEADLEY.

744. You have not got the distance from Blackhead to Belfast if the line to Collooney was made?—I have not.

Mr. HANSON. It is about 210 miles.
Witness. At Dublin the M.G.W. Railway is connected directly with all the other trunk lines entering the city, and can handle traffic landed at any part of the quays with which there is railway connection. In addition the Company own the Spencer Dock. The Spencer Dock, completed by the Company in 1875 at a cost of £72,000, covers an area of about 3½ acres, the quay length being 3,240 feet. Access from the River Liffey is obtained through a lock of the following dimensions: Length, 174 feet; width, 84 feet 6 inches; depth over sill, 16 feet 1½ inches. The Spencer Dock forms the eastern terminus of the Royal Canal, which enters the dock at the end farthest from the River Liffey. The usefulness of the Spencer Dock is limited by the size of the entrance lock and of the passage between the Upper and Lower Docks, which will only accommodate small vessels carrying up to 450 or 500 tons. The tendency in the Irish coasting trade is to use larger vessels, which can be worked more economically in ratio to cargo space than the smaller ones, and a small proportion only of the steamers trading regularly with Dublin can use the Spencer Dock. The enlargement of the sea lock and of the waterway between the two docks would not be a work of magnitude, but would involve the alteration or replacement of the twin bridges erected a few years ago by the Dublin Port and Docks Board to carry the main thoroughfare over the entrance to the dock. The desirability of carrying out these improvements is considerable, because that portion of the quay accommodation in Dublin provided with railway facilities is limited, and what there is is largely required for the regular cross Channel steamers, and it is sometimes difficult for colliers and tramp steamers to obtain berths. My own Company has suffered inconvenience and loss owing to steamers with locomotive coal, which were too large to enter Spencer Dock, being unable to obtain berths on arrival. That at present very frequently arises, but in peo-war times it was not so frequent. That would be relieved if our own dock and others were made more suitable for modern requirements.

Mr. KEATING.

745. Why not come into Dublin Harbour?—They could come into the harbour, but the berths provided with railway accommodation is limited.

Mr. LEADLEY.

746. Before the Spencer Dock was made, in 1875, I suppose the Royal Canal communicated with the Liffey?—Yes, it came out as a canal. The gross revenue of the dock in 1917 was £5,718, and the total expenditure £2,272. The total tonnage dealt with was under 200,000 tons, including about 60,000 tons of locomotive coal imported for the use of the Railway Company. The dock is mainly used for the importation of coal and export of round timber. If the improvements already spoken of were carried out, a further expenditure in providing electric cranes, overhead runways, and grates for discharging coal would be justified, and the equipment of the dock on modern lines would greatly add to its usefulness. At Galway a branch line has been constructed by the Company connecting the railway system with the quays, but it is but little used.

and

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Mr. KEOGH.

[Continued]

Mr. Leach—continued.

used for seaborne traffic in or out. I am speaking of pre-war times. At the present time there is very little shipping into Galway or into any of the Western ports, but in pre-war times the amount of sea-borne goods dealt with at Galway was small. The docks were used entirely for local purposes—ships with coal and grain and such—but there was very little stuff that was carried by rail. At Sligo also the railway is connected with the quays, partly by a branch line constructed by the Company and partly by a tramway provided by the Harbour Commissioners. A considerable overseas trade was dealt with at Sligo prior to the war, but, owing to the want of water at the entrance to the port, large vessels are obliged to discharge part cargo before coming up to the deep-water berths. A scheme to provide wharf accommodation with deep-water access at Rossea Point, about 5 miles from Sligo, has been suggested, and so difficultly would arise in constructing and working a railway to connect with it as an extension of the M.O.W. line. At Westport also a quay line has been proposed by the Company, in connection with which Messrs. Hall have laid down a tramway to their mills. The port is suitable for and is frequented by small steamers only. There is no connection between the railway and the port at Ballina. The sides which have been proposed for the establishment of a transatlantic port at Banna (Galway), Killary Bay and Blackrock Bay are all within the district served by the M.G.W. Railway. The lengths of new railway required to link up the proposed port and the railway system are—Banna (about) 5 miles, Killary (about) 12 miles, Blackrock (about) 45 miles.

Chairman.

347. Is that across bog land?—It is poor land. At the Blackrock Bay end it is through boggy land.

Mr. Leach.

348. Are you assuming Behanville as the terminus?—Yes.

Mr. Hannen.

349. In the Mulllet peninsula?—Yes. If there is one subject on which Irishmen are altogether agreed, I think it is that those ought to be a Transatlantic port on the West coast of Ireland. Where it is to be placed is a matter upon which we are not agreed, but that it ought to be somewhere between Galway and Sligo we are all agreed on.

Chairman.

350. It does not matter to your Company which of the two—Blackrock Bay or Galway—is selected?—No. Galway has the one advantage that you have a trunk line already made.

Mr. Fick.

351. Your own predilection is in favour of Galway?—The Midland Company think there ought to be a harbour, but that it is for some other authority to decide where it should be. The Royal Canal runs from Dublin to the Shannon at Tarnaharry, with a branch to Longford, a total distance of 86 miles 68½ chains. It communicates with the River Liffey through the Spencer Dock at Dublin, and with the Shannon Navigation at the western end. The canal was originally provided with harbours or discharging places at convenient points for serving the towns and villages en route, and stores were built at five or six places, but the latter have become disused. The summit level is 207 feet above sea level; there are 46 locks in all, the smallest being 75 feet long by 13 feet 34 inches wide, with a minimum depth over the sill of 5 feet 3 inches, and the maximum depth of the canal itself, apart from locks, is 6 feet in the centre and 3 feet at the sides. The capacity of barges suitable for use on the canal with a maximum draught of 4 feet 6 inches is not more than about 60/70 tons. The original expenditure on the canal amounted to £1,481,900, the capital cost to the M.G.W. Company being £335,000. The annual loss on working before the war was about £1,500. The tonnage carried last year was 19,900 tons. The towns and villages served by the Royal Canal are mostly unimportant. For 50 miles out of Dublin the canal and railway run practically side by side, and the surrounding districts, accordingly, are served by both means of transport. In like manner, the only towns of any size on the canal, Mullingar and Longford, are also served by the railway, which provides a shorter

Mr. Fick—continued.

route to Dublin than the canal in both instances, the difference of distance at Mullingar, however, being very trifling. The Royal Canal connects at its western terminus with the Shannon Navigation, but there is practically no exchange of traffic between the two waterways, nor does there appear to be any prospect of considerable development in this connection, apart from the opening up of the Arigna mineral district. The only town of any importance reached by the Shannon Navigation north-west of Tarnaharry is Carrick-on-Shannon, which is served by railway, and south of Tarnaharry the only town within reach is Athlone, to which, however, the Grand Canal provides a shorter route from Dublin, whilst two railway trunk lines serve it also. The Arigna mineral district, producing coal and iron ore, is within a short distance—say, four or five miles—of Lough Allen, which connects with the navigable portion of the Shannon, and thence the Royal Canal would form by far the shortest water route to Dublin. It would, however, be in close competition with the railway. The canal route would be handicapped by cost of conveyance from the pit to the water, but, on the other hand, the break of gauge on the railway route (the Carrick and Lestrin railway running to Arigna being a narrow-gauge line) involves additional expense also. The possibility of developing to any material extent the trade on the Royal Canal on commercial lines is, at least, doubtful. The district served is purely agricultural, without any considerable centre of population apart from Dublin. Except for the section between Mullingar and Tarnaharry (including the Longford branch), which is unimportant from a traffic point of view, there is direct rail competition at every point. Finally, and this is the most serious difficulty to my mind, the construction of the canal and dimensions of the locks render it unsuitable for use by any but small barges capable of carrying 60 or 70 tons of cargo, and the most economical working is, for this reason, impracticable. I am aware that canals in other countries of a somewhat similar type as regards dimensions have been operated more or less successfully, but I cannot recall an instance in which the circumstances are at all comparable to those obtaining in the Midlands and West of Ireland. Neither can the Royal Canal, with its small locks and limited carrying capacity throughout, be compared with any advantage with the great waterways met with in Continental countries. If the peat industry in Ireland were developed on a large scale there might be a future for the Royal Canal, which passes through or in the immediate neighbourhood of bogs for perhaps one-third of its entire length, but, so long as the Midlands depend almost wholly on agriculture for the support of the local populations, the advantage of the speed and convenience afforded by railway transport will, in my opinion, more than balance the higher cost. The Midland Great Western Railway Company does not act as carriers on the Royal Canal, but merely as receiver of tolls from the traders or private owners of barges, of whom there are only eight or ten, owning 35 barges. The maximum tolls are fixed by the Lord Lieutenant, and the maintenance of the waterway is supervised by the Board of Control. As regards the latter body, consisting of representatives of the Board of Public Works with whom representatives of traders on the canal are associated, the Midland Great Western Railway Company are placed in an unusual position as compared with other canal-carrying railway companies—they are subject not only to the general jurisdiction of the Board of Trade, but to the particular supervision of the Board of Control, who can enforce their requirements by means of a penalty fund. The Midland Company is required by statute to maintain a fund, which may be expended on repairs to the canal by the Board of Control, and must, in that event, be replenished by the railway company. The condition of maintenance of the canal, therefore, is not in the discretion of the owning company, but is subject to the supervision of a controlling authority. I should like to say something arising out of Mr. Nooroy's evidence. Several points were raised that would require looking into, and I cannot deal with them off book, but there is one aspect of the question that I would like to present to you. It is rather suggested that the Midland Company acquired the Royal Canal for its own purpose and proceeded to kill the traffic. First, I would like to say it did not acquire

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Mr. KEOGH.

[Continued]

Mr. Field—continued.

the canal for its own purpose. It was compelled to take over the Royal Canal. The canal was in a bad way at the time the railway was first projected. Like a great many other railway-owned canals, it was not an act of commercial policy, on the part of the railway company acquiring the property. It was a matter of compulsion on the Midland Railway Company, and imposed on them for the benefit of the then shareholders of the canal. As to the alleged killing of the traffic, I don't agree that the Midland Company have of malice prepared killed the traffic, but in the ordinary evolution of transit conditions the traffic is naturally being killed. We have heard that 4s. 6d. is the canal rate from Dublin to Mullingar on coal. That is about what the railway rate would be also. A trader who happens to have his store on the canal, and who would have to cart stuff coming in by rail perhaps a mile or more, will naturally use the canal; but, in 99 cases out of 100, traders prefer to use the railway, and therefore I confess it seems to me that, unless the conditions in this country completely alter—unless it ceases to be a purely agricultural country, as it is at present, at all events in the Midlands and the West—there is very little future for the Royal Canal. The question of communication between the Royal Canal and the Grand Canal was spoken of. I have no idea what the volume of traffic would be likely to be, but I think it would be small. I don't think there would be any considerable volume of traffic such as would justify the expenditure.

Chairman.

752 You said the canal originally cost £1,481,000?—Yes.

753 I gather it had not been successful?—It was in a financially embarrassed state when the Midland Company took it up and had passed through a very difficult time. It was virtually derelict when the Midland took it over, having passed through the hands, I think, of three sets of promoters. The railway company had only to pay about one-fourth of the original cost to buy it.

754 The water that the railway sells from the canal, to whom is that credited?—It is credited to the railway company through the canal accounts. In other words, it goes to reduce the loss on the canal.

755 The land that it used by the railway, do the canal accounts get credit for it?—No.

756 You said that the dimensions of the locks only allowed small vessels to go through?—Yes.

757 Is there any reason why the locks should not be enlarged?—None, except financial reasons.

758 How much money have you got to the credit of the fund?—About £7,000.

Mr. Field.

759 You mentioned about Roscoe's Point and the idea of getting that place for steamers?—Yes.

760 Has there been any agitation in regard to it?—I don't think the scheme has gone very far. It has been suggested that the difficulty of getting steamers up to the present deep-water quays would be obviated by a very small expenditure on wharf accommodation at Roscoe Point and by the construction of a short length of railway.

761 Has there been any demand from Sligo for this?—I would not put it quite as high as saying there has been a demand for it. It has been spoken of in Sligo.

762 In Sligo I heard complaints of the killing off of the sea-going traffic because the pier is not properly dredged. A man said to me that if Roscoe Point were used, the big steamers would come up there, and Sligo would benefit?—Yes. The killing off of the sea-borne traffic is not so much a question of dredging, as of wharving, with deep-water access.

763 Who is responsible for building the railway with the smaller gauge?—The existing railway from Drogheda to Angas and Bellebet is narrow gauge. That is a very unfortunate thing.

764 How many boats did you allow to be scrapped in the canal?—What exactly is the significance of "allow"?—

765 You allowed them to go to rack and ruin?—Do you mean the Midland boats?

766 Yes?—You can see them at the spur, 767. At the back of Mountjoy. How many of these boats did you let go?—About 35 years ago the directors

Mr. Field—continued.

of the railway, not for the purpose of injuring the by-traders at all, but because they were under the impression that the trading methods on the Royal Canal were antiquated, spent a considerable sum in providing modern barges, suitable, so far as they could be made suitable, and they acted as carriers on the canal for some years. They not only made no profit, but they incurred such a serious loss by the experiment that ultimately they withdrew the boats altogether. Mr. Nooney is under the impression that the boats were put on by the company for the purpose of injuring the by-traders and driving them off the canal. No such idea was ever contemplated.

768 I think it would serve the railway company and the canal if they could come to some agreement so as to help the agricultural produce of the country?—The railway company would be glad to do anything that is practicable with a view to helping agriculture or any other business, because we do feel that we have a great deal more at stake in regard to the general prosperity of the country than in any question of railway versus canal.

769 I quite agree. I found your directors reasonable men, and I am not here to attack them. I am a strong advocate of railway nationalisation. Now, Mr. Keogh, what have you to say, as regard to the statement made by a witness (Mr. Nooney) that the railway company reduce their rates as against the canal by giving a rebate?—I heard Mr. Nooney say that. What he was really referring to is that, in common with other railway companies, we give a low rate on certain quantities of coal.

Mr. Lindsay.

770 On 10 ton lots?—On 200-ton lots.

Mr. Field.

771 That practically amounts to a rebate for the large consignment. I know how that works?—That is the explanation of Mr. Nooney's term "rebate." It is not a rebate.

772 How much of the £7,000 referred to in your evidence have you laid out on the canal?—We have not been called on to expend it by the Board of Control. So far as I know, we have not been asked.

773 And you keep it?—Yes, as we are bound to keep it until the Board of Control requires it to be spent.

774 Do you know why the dredger is kept in such a state of miserably inactivity?—It is not. On that question I would like to say that the waterway in the canal is as good as it has been at any time in recent memory. The boats are not tied up by the depth in the canal but by the depth on the tillis. It may be a question of some of the landing places not being dredged to the full depth, but the waterway for the canal is ample.

775 What about the tow-path?—The banks have been used for the production of food during the war and before, but without obstructing the paths.

776 As allotments?—Yes.

Mr. Lindsay.

777 These rates that you spoke of—the low rates—were quite public?—Yes, they were in the rate books.

778 I think the witness was under the impression that you had done something in an underhand way?—We had not.

779 Mr. Nooney made the point that you would not allow motor barges on the canal?—There has not been an application within recent times.

780 There is not much of a future for canals through an agricultural country—that is your view?—Yes.

781 At Cavan there is one station with two companies?—Yes.

782 Why is Westport Quay closed up—no traffic?—Yes, no traffic. The quay line is not closed.

783 I understood that when the Royal Commission came around here, someone representing the railway company professed the company's willingness to give up the canal provided the company was paid the money it gave for it?—I think the attitude of the company at the time was that if the capital were returned and if there were some compensation and protection against the setting up of a rival concern alongside the railway, then they would acquiesce.

784 What you don't want set up was a concern subsidised by public money or by rates?—Yes.

785 A rate-aided competition?—Yes.

786 About

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Mr. KEOGH.

[Continued.]

Colonel Grotten.

785. About the port of Dublin, do the barges come from Spencer Dock into the Liffey?—Yes.

787. Alongside the steamer?—Yes.

788. There is no obstacle whatever?—None whatever. Furthermore, if they take their cargoes in Spencer Dock they are free from tolls.

789. As regards the enlargement of the dock gates and lock, what are the obstacles?—They are entirely financial.

790. The railway company is not prepared to make the expenditure?—No. The expenditure of a further one would not pay the company at present.

791. As regards the railway facilities at the North Wall, I think you said that they were not altogether sufficient?—They are not. The railway facilities apply to only a limited extent to the free berths—the berthing is insufficient. The railway facilities apply to the whole North Wall from our depot at Spencer Dock right down to the point of the wall, but the available quay space for berthing ships is insufficient. The tremendous difficulty is the difficulty of finding quay space for the ships.

792. What is the class of traffic you deal in?—In the dock, the incoming traffic is largely coal and grain.

793. Are you speaking of the traffic from Spencer Dock?—Yes.

794. The general traffic?—Food stuffs, coal, a certain amount of manufactured timber and sundry traffic.

795. Is it considerable from the Port of Dublin?—Yes, quite considerable.

796. Have you figures as to tonnage?—I am afraid not.

Mr. HOSKIN. We can get them in the Import Returns of the Department of Agriculture.

Mr. LINDSAY.

797. How many goods trains in the day do you run out?—About six.

Colonel Grotten.

798. What do you send down to the port?—We bring to the port a large quantity of perishable traffic, eggs and foodstuffs and live stock of all sorts, potatoes, and at the present time a considerable timber traffic.

Chairman.

799. It has been represented to the Committee that a Transatlantic port is desirable chiefly from the point of view of passengers, mails and parcels. Do you think heavier traffic could be handled at such a port?—Yes, we believe that the productive power of Ireland might be materially increased if there were direct access, by means of a Western port, with the American continent. In previous times there was a certain amount of Irish produce that found its way across the Atlantic.

800. What class?—Lisens, Guinness's porter to a considerable extent, cured fish; and we do feel that if the facilities were increased so they would be by the establishment of such a port there would be every prospect of developing the country.

801. Irish produce is very largely agricultural?—Yes.

802. That is one of the obstacles to a big trade?—If the scheme were accompanied, as was always intended, by a ferry across the Channel, there is no reason why a certain amount of cargo should not come across the water.

803. You contemplate developments in that respect?—Yes.

804. What about incoming traffic?—Well, there is a certain amount of American produce that does come to Ireland. Bacon, for instance, is a considerable traffic, and there is no reason why the whole of it should not be brought to a direct Irish port.

805. One of the difficulties in connection with the cross-Channel ferry would be the difference in gauge between the British and Irish railways. Have you considered how that could be overcome?—No, but there are two ways which may be suggested—either by having a third rail in Ireland (short of having the gauge of the whole of the railways altered) or by transshipping the bogie trucks from the wide to the narrow gauge. The passengers would know nothing about it.

806. You have gone into the matter from the engineering and mechanical point of view?—It has been considered, and there is nothing impracticable about it.

807. It is a question of finance?—Yes, chiefly.

Mr. FIELD.

808. From the engineer's point of view it is not impracticable?—No.

Mr. KEATING.

809. Do you think that if the whole gauge were altered that the cost would be prohibitive?—It would be very considerable, but I don't know whether it would be prohibitive by any means. The conversion of the Irish gauge would be a comparatively small item in a very large scheme like this.

810. The cost of altering the present gauge to the gauge necessary to make it available for the English system would be a small item?—A comparatively small item. It is not a case of increasing the existing gauge in Ireland; if so it would be a very large undertaking. It is a reduction in order to get to the standard of the British gauge in the width of the lines, which is a very much simpler problem.

811. You think the third rail would reduce the cost?—It would be cheaper than the conversion.

Mr. FIELD.

812. Would it be equally safe?—Yes.

Mr. KEATING.

813. What about the difficulties as to the crossings?—The Great Western found no difficulty, and they had the mixed gauge for many years.

Mr. KEATING.

814. Arising out of Mr. Nooney's evidence, he asserted that there was a conflicting of interest between the Royal Canal and the Midland Railway, and one of the most important observations he made was that the Royal Canal wished to facilitate transit by communicating with the Grand Canal, and that the Midland Railway was not, shall I say, willing to agree to that possibility?—I did not understand Mr. Nooney to say so, but I don't see how the Midland could obstruct it even if they wished to do so. They are merely toll-takers. The position of the Railway Company is thus—we receive certain tolls; when these tolls have been paid to us there is an end of our control of the working of the Royal Canal, subject to the maintenance of the waterway. However, if the Midland Company wished to obstruct this matter—which they don't in the least—I don't see how they are going to do it. We have no power to interfere with the use by traders of the waterway as it exists.

815. Mr. Nooney asserted that the effective opposition to the Grand Canal and the Royal Canal really arose from the Midland?—The connection exists to-day.

816. Mr. Nooney says the Midland is obstructing national facilities in so far as their action between the Royal Canal and the Grand Canal is concerned?—I absolutely dispute the accuracy of that statement. There is nothing to prevent a trader to-morrow passing his boat from the Shannon into the Royal Canal or vice versa.

817. What is the difficulty in arranging this connection?—None whatever; it exists.

818. Then Mr. Nooney's observations are not founded on fact?—I think he is under a misapprehension.

Mr. HOSKIN.

819. Can you tell us, Mr. Keogh, whether the accommodation, so far as railways are concerned at the western ports at present, is as adequate now as the traffic requires?—Yes.

820. And the Midland Company would be prepared in the event of any port development to meet harbour improvement by corresponding railway improvement if necessary?—Undoubtedly.

821. The Midland Company is quite indifferent as to the point on the western seaboard at which the suggested Transatlantic port should be established?—We don't feel we are the proper authority to express a strong opinion on that.

822. You held views?—Yes, collectively and individually, but it is not a question that the Railway Company ought to be called upon to decide.

823. With regard to the Royal Canal, will you tell us how frequently has the Board of Control called the attention of the Midland Company to the want of effective maintenance of the canal?—I am not aware of any instance during the past six years in which the

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Mr. KNOGH.

[Continued.]

Mr. HANCOCK—continued.

Board of Control has called upon the Company to execute repairs. I am aware, from reading the proceedings, that some 25 years ago there were several occasions on which the Board of Control called on the Company to execute works, which were executed, and, so far as I understand, the requirements of the Board of Control and the requirements in the Reports of General Hutchinson and Major Macdonald were carried out by the Railway Company. I am not aware of any particular in which they were not carried out.

826 The important fact is that no application has been made to you for six years to more adequately maintain the canal?—That is so.

825 Did you hear the description given of the cuttings of the works?—Yes.

826 Do you agree with that description?—No; I agree that we have not got any mechanical means.

827 I have some recollection of seeing that done myself, but it is more than six years ago!—The method is very ancient in Ireland, but it is effective.

828 With regard to this Penalty Fund, that is available when any demand is made on it. It is there if the necessity arises to effect repairs in any part of the canal?—Certainly.

829 As to the decrease in the traffic on the canal, the whole problem, in your judgment, is due to the natural operation of economic laws?—Yes.

830 If I may say so, I congratulate you on the case you have made!—Thank you.

Mr. Lindsay.

831 With regard to the connection between the two canals, can you say if it is a fact that the Grand Canal boats rarely come down to the Liffey?—Very rarely.

832 There is no need for the connection so far as Dublin is concerned?—No.

Mr. Keating.

833 I simply dealt with the general principle. Mr. Nooney expressed before the Committee?—I understood you. My observation is quite as true of the Dublin end as the Tarnagherry end. I know of no reason why the canal boats should not pass through at the Dublin end.

Colonel Gifford.

834 Could you tell the Committee if the construction of the main line of the Midland is sufficiently

Mr. A. A. O'NEILL, Representing the Irish Canal Boat Owners' Association, called in; and Examined.

Chairman.

842 I understand you represent the Irish Canal Boat Owners' Association?—Yes, sir.

843 I suppose you read our terms of Reference?—I did.

844 We want to find out the facilities offered by the ports and harbours of Ireland, and it is in connection with the canals you want to give evidence?—It will be solely in connection with the Grand Canal system. This Association which I represent deals solely with that. The facts are short. We held a meeting last Friday and our report was in progress of preparation. May we ask for permission to hand in that Report?

845 Yes?—Another point suggested was that, when you are making your tour of inspection of the Grand

Mr. Thompson and Mr.

Mr. F. G. THOMPSON, Clerk, Representing the Irish Canal Boat Owners' Association, called in, and Examined.

Chairman.

846 You desire to give us some information?—Mr. Murphy and myself are more interested in the lower end of the Grand Canal system of the Barrow Navigation. The main trouble about the canal is that it has not been worked from the point of view of a public waterway, which is what we want really. We don't want a waterway that is devoted to the interests of one concern and which leaves the ordinary public or boat owners out. The upper end of the canal is frequently short of water. It cannot carry a full load in the summer time.

Mr. Field.

847 Where is that?—From Athy to Dublin they frequently cannot carry full loads in the summer time.

Colonel Gifford—continued.

substantial to carry heavy boat traffic?—Yes, the greater part of it is strengthened to carry any traffic. There is a small section at the western end of the line which would probably need more strengthening.

Chairman.

835 There was a statement made to-day that the canal barge-owners bringing goods to Dublin into Spencer Dock had no warehouses to put them into except warehouses of which they were given keys by the Railway Company and that the Company accepted no responsibility?—That is so. We, as receivers of tolls, do not concern that our duty goes further than to provide a waterway and adequate facilities for storage. We do not consider that we are under any obligation to provide caretakers or a staff in connection with these stores.

Mr. Field.

836 You don't accept responsibility?—No, we say "there is the canal, if you pay us 10d. you can use it," and as we receive it, our obligation is to maintain the canal in a workable condition.

837 You employ the lock keepers?—Yes.

838 In older days was not there accommodation?—There were stores which I believe were built for canal purposes at Broadstone which were out of use when the new bridge to the passenger station was constructed. Whether they were used for canal purposes at that time I am not in a position to say, but they were originally constructed for canal purposes.

839 Would it be feasible to open up that Broadstone place again?—It would not be feasible to carry the canal to its original terminus. I don't think, as a matter of fact, that the Broadstone would be as convenient a depot for canal purposes as the canal in the neighbourhood of Spencer Dock. For general business purposes I am quite satisfied that the existing terminus at Spencer Dock is more convenient than the one at the Broadstone would be.

840 That is quite true. I agree with you. Does your conviction carry you to the point that you would shut up that spur which is a most important matter for the northern part of the city?—That spur was not closed by the Railway Company at all. It was closed from disuse.

841 I think your evidence is very fair.

Chairman—continued.

Canal, if you would give us notice of the date at which you would be at the different points, I will arrange for our members to meet you and give evidence as to the defects of the Grand Canal system.

846 I am afraid that that would not be possible!—Failing that, we would ask that you would bring with you Mr. Fletcher's recent Report, which I think has been published. This was an independent Report on the canal made by Mr. Fletcher at the request, I think, of the Canal Control Company, and it deals mainly with the defects of the Grand Canal. Would it be possible for your Committee to get the Report?

847 Yes, we will get it!—Thank you.

Murphy will give evidence.

Mr. Field—continued.

The Canal Company have certain springs from which they derive their water, but instead of that water going into the canal it is sold in Dublin to various institutions. The Great Southern and Western Railway Company take water from them at Inchicore, and Guinness's and people like that, and the Tramway Company also purchase water from the Canal Company. The Canal Company get a revenue from the sale of this water, and the question for the Company is whether it is better to sell it or run it into the canals to run the extra tonnage of stuff. In regard to dredging, a similar question arises—whether it is better for the Company to keep the canal dredged or to run the boats light. Our boats don't run on the canal but on the Barrow.

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Mr. THOMPSON.

[Continued]

Mr. FLEMING—continued.

Borrow. The Borrow was taken over by the Canal Company in 1896, I think, and from that date it has been regarded, so far as we can judge, by the Canal Company, only as a feeder for the Canal.

800 You mean the Barrow?—Yes. The Barrow, in our opinion, has been regarded by the Company as a feeder for the canal, and the result is that they have not devoted the attention to the Barrow which it deserves. It has always been the contention of any of the canal people to whom I have spoken on the subject, that the Barrow cannot be made to pay. Well, I don't agree with that. I am familiar with the Barrow from Galway to Waterford, and I know all the difficulties that have to be overcome, and they are not many. That waterway, especially since the Roadside service has come into Waterford, is perhaps one of the most important in Ireland. I refer to the section between Waterford and Carlow. It has been so much neglected that during this summer, certainly during last summer, 18 tons was the most that could be carried on it at certain times in a boat that should carry 40 tons, owing to the fact that there are a number of places where the river has been allowed to silt. In several instances, in order to get a sufficient depth of water to carry a reasonable load, they raised the level of the river. The result has been that the river still silts up. Instead of keeping the river on the old bed they allow the bed to fill up. The man who was originally in charge of works on the Barrow in the old days was brought by the Canal Company to Dublin when they took over the Barrow, and he has charge now both of the canal and the Barrow, which is too much for one man. If anything happens in Carlow, they have to wait for a man and gear to come from Dublin. At Waterford the canal accommodation is very poor. They have a miserable little crane and a poor sort of jetty, and very little accommodation in Waterford, where they should have a decent station for the cross-channel stuff.

Chairman.

851. Is there a warehouse there?—They have a very poor little thing, about half the size of this room.

Mr. HANCOCK.

852. Where is the Grand Canal station in Waterford? In the Old Market House, seaward of the Bridge. From our Association's point of view, we have no accommodation except what the Port of Waterford lets us have. There is no provision for us specially in the Port, whereas, if the Canal Company had accommodation, it would improve their trade and we might reasonably expect that there would be room for our boats as well. When you get to St. Mullins you have to wait for the tide, and that necessitates a delay.

Mr. LINDSAY.

853. Is the Canal Company the authority there?—I suppose they are not, properly. An additional lock would be required at St. Mullins. If there was money spent on these waterways they would be an immense advantage to the district.

Mr. KEATING.

854. Money spent by whom—who would spend the money—the Government or the County Council?—

Mr. M. J. McNEWEY, Barrow, Scaroh Works, Glenguenamanagh, representing the Irish Canal Boat Owners' Association, called in; and Examined.

Chairman.

855. You wish to give us some evidence?—Yes, sir, I would like to give some particulars regarding the condition of the river at St. Mullins and on to Glenguenamanagh. At St. Mullins, boats cannot proceed from fresh to tidal water without tide, and must be arranged to cross an hour before or after high-water in good tides. In low, poor tides they are occasionally delayed two or three days when they cannot cross at all. Some years ago it was proposed to put a lock two miles below St. Mullins, which would allow the passage of boats at all times without the assistance of the tide. I was informed that the Barrow Navigation Company actually had the land agreed for, for this purpose. With regard to the river at Mullins Mill, it is bad from this to the lock, and hinders traffic very much. Boats

Mr. KEATING—continued.

That would depend on who was to get control of them. If the County Council are to get control they certainly should spend money on them. That, however, is a question that I did not come here prepared to discuss, but I want to show how the system could be improved. When you get to St. Mullins, there are four or five locks between that and Glenguenamanagh, and the water is fast, but that section could be improved up to 10 tons extra capacity with a very small outlay. From Glenguenamanagh up it gets worse, and quite a number of places require to be extensively dredged. All along the whole system there are no facilities for loading or unloading more than the bare bank, and in many places the bank is very narrow. There are no loading sheds that could be used by anybody on the canal. There are some stores that are private property, but boat owners cannot use them. Between Bagnalstown and Carlow there are three bad places in the river which require improvement. There are islands which impede navigation. The weirs have not been cut as formerly, and horse-haulage is practically the only thing that can be used on the Barrow. The Canal Company run motor barges, but they have to run light.

Mr. KEATING.

856. Is it your opinion that if the Barrow were dredged properly that the trade of the country would be improved?—Undoubtedly. It wastes more than dredging, but dredging is the principal thing that is wanted on the whole system.

Chairman.

857. Is there much dredging going on?—I don't think there is any on the canal between Dublin and St. Mullins.

Mr. GILLES.

858. There is a little going on, but it is very slow.

Chairman.

859. Mr. Thompson, what is the average weight of your cargoes?—50 tons on the Barrow. They can, however, only carry 30 to 32 tons.

860. What does the beam measure?—11 feet.

Mr. HANCOCK.

861. What is the width of the locks?—14 feet, I think, is the smallest.

862. What draft of water do the boats take?—I think 6 feet in the canal. At 5 feet 9 we can carry 40 tons. From Waterford you have got 32 miles of tidal water that is absolutely navigable at any draft up to 6 feet. It is only a question of another 30 miles to Carlow to open up the whole waterway to the traffic of that district. It could do everything that is wanted for that district.

Mr. KEATING.

863. Have you got any suggestions as to the best way of opening it up?—If you want to do the work on a moderate scale and at once, dredge the place, and blast the rocks and remove some of the islands. If you want to do a big job, you would have to extend some of the canals.

Chairman—continued.

cannot travel without the help of the tide. Above Webster's Lock the canal in low water runs down to 5 feet 4 inches. A fairly good type of boat carries 30 tons on this section, as against 35 tons by a good new-pattern boat, and 40 tons in good water. For instance, a motor-barge that I have only takes 25 tons, against 40 in good water. Half the distance between the locks there are rocks that should be taken out. When you get up about half way at a place called Carrigrohane there is a scour. It takes 6 to 8 horses in the winter time to pull through that scour. From that Lock—Donner's—the level is fairly good, but the canal is the same depth as at Webster's Lock—3 feet 4 inches. There is the same depth at Balger's Canal, about midway, and there is a shoal from this

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Mr MURPHY

[Continued]

Chairman—continued.

to the Graigue Lock. That could be easily remedied. Then we come to Graigue. In light water boats lighten 8 to 9 inches here for up-river. This reduced loading would be the average on the river to Carlow except at Royal Oak Bridge, where the conditions are worse, and Lock Ford at Bagnalstown. Cooke's Canal, next above Graigue is light water—about 2 feet 7 inches. Boats only take about 30 tons of cargo over this section. In normal water floods it takes from four to six hours in a flood. Even 20-ton boats take four hours to pull. The river is dangerous in low water for motor boats and also in high water. You can hardly work them satisfactorily above Graigue. There are no cranes between New Ross and Carlow such as would be required for the handling of heavy timber. They would be very useful. There is no part of the river of outstanding merit between Carlow and Graigue. There is no dry dock below Carlow, and no place to repair boats. The nearest dry dock is at Carlow. There is a diesel dock at Graigue. There is no covered way or facilities for hack-boat owners. The Company's boats have their own stores, but no covered way. Hack-boat owners have no store accommodation.

854. I really think you want to see more dredging on the river?—Yes, and rocks blasted, and the scums remedied.

855. Goods that you cannot take by canal, how do you take them?—By rail, and we have to cart them 6 miles. The distances from canal to rail are:—St Mullins, about 5 miles from Ballyvaughan; Graigue, 6 miles from Bann; Gorebridge, 1 mile from Gorebridge Station; Bagnalstown, 1 mile from station; Barrow Cove Maltings, 3 miles from Gorebridge.

(The Sub-Committee then adjourned

Chairman—continued.

Loughlin Bridge Maltings, 4 miles from Bagnalstown; Mallock Maltings, 1 mile from Mallock.

Mr. Lindsay.

856. The Barrow is worse than it was before the upkeep. Has the Canal Company let the Barrow Navigation Company was not a prosperous concern.

857. They paid 4½ per cent. on £30,000 capital?—Yes.

858. There is not much of a margin for dredging and upkeep. Has the Canal Company let the Barrow Navigation down?—Yes.

859. If they have not let it down badly you have not so much to complain about; if, on the other hand, they have let it down badly you have a fair grumble. The traffic has gone down.

Mr. Hanson.

860. Would it be a correct summary of the evidence given by Mr. Odiam, Mr. Thompson and yourself to say (1) that the dredging is defective, (2) that the facilities are defective, (3) that dry dock accommodation is required, (4) that there should be storage for the hack-boat men, (5) that certain improvements in the waterway are necessary, and (6) that there is a deficiency of water at certain points?—Yes.

861. In the case of those maltings along the canal is there any competition?—They are well served by the canal.

Chairman. We are very much obliged to you for the information you have given us, and if you send us in the Report of the Irish Boat Owners' Association it would be of use.

to the following afternoon, at 2.30.)

THIRD PUBLIC SITTING: WEDNESDAY, 11TH SEPTEMBER, 1918.

In the OAK ROOM, MANSION HOUSE, DUBLIN.

At 2.30 P.M.

MEMBERS PRESENT

Colonel Gresson, M.P.
Mr. William Field, M.P.
Mr. Matthew Keating, M.P.

Mr. W. Hudson, M.P.
Mr. W. A. Lindsay, M.P.
Mr. P. J. Hanson.

Mr. Philip MacNulty, Secretary.

MR. ARTHUR SHIRLEY KENN, M.P., in the Chair.

Mr. H. PHILLIPS, General Manager of the Grand Canal, called in; and Examined.

Chairman.

862-3. Mr. Phillips, you will be able to give us some evidence about the Grand Canal?—Yes, I hand you in a map of the canal. Of course, the notice I received to prepare a statement was very short. However, I have prepared a few notes of information. The main line of canal extends from the River Liffey at Dublin to Ballinacree, and with five branch lines as follows:—Main line, River Liffey to Ballinacree, 87½ miles. Branch lines, Liffey to St. Mullins, 70½ miles; Monasterevin to Monasterevin, 12 miles; Sallins to Corbally, 7½ miles; Ballyvaughan to Kibbegan, 8½ miles; Kilderry Canal, 1 mile—equals 196½ miles. Other navigations traded over: Shannon Navigation, Carrick to Losenick, 12½ miles; River Barrow, St. Mullins to Waterford, 33 miles—equals 156 miles. Total, 358½ miles. The Grand Canal is the principal trader on the River Shannon (the property of the Government), the tolls paid by the Company amounting to an average of £3,156 for the past 5 years, and in one year £3,078. The dimensions of the boats which can navigate the canal are:—Length 61 feet, width 13 feet 6 inches, headway 9 feet. On the River Barrow the dimensions are:—Length 65 feet, width 13 feet 4

Chairman—continued.

inches, headway 8 feet. The Company carry traffic to the towns on attached sailing till, which includes the following places where there are no railway services:—Ballykelly, Corbally, Courtwood, Dominick, Grangeamaddy, Kilgarra, Kibbegan, Kylescor, Lanesborough, Loughlin Bridge, Leixtown, Leixtown, Liska, Monasterevin, O'Brien's Bridge, Philipstown, Portanna, Raham, Rathangan, Reberstown, Roskilly, Rossmore, Scariff, Shannon Bridge, Shannon Harbour, St. Mullins, Vicerstown. The Grand Canal system is relied on very largely for the transit of all kinds of goods, the tonnage of grain, grain produce and manures amounting to as much as 120,881 tons in 1912, of which 70,682 tons were carried in the Company's barges, and 40,000 tons by traders. The total tonnage carried in that year was 308,651, of which 174,551 were carried in Company's barges, and 134,000 tons were carried by traders. The mileage of the canal is 196½ miles; River Barrow, tidal portion, 33 miles—equals 156 miles. Total 351½ miles. Population of towns served by the Company, 432,233. Total tonnage carried, 1912, 308,651. Total tonnage carried in Company's barges

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Mr. PHILLIPS

[Continued.]

Chairman—continued

barges, 1912, 174,551. Total tonnage carried in by-traders' barges, 1912, 134,300. Tonnage carried to towns where there are no railway services, 12 months to 30th April, 1917, 40,614. Grain and grain produce and manure, Company's barges, 1912, 79,662 tons. Grain and grain produce and manure, by-traders' barges, 1912, 40,699 tons. I may mention the total capital is £665,000, which, with debentures—£350,000—makes a total of £1,015,000. The original cost of the canal was £1,137,590.

Mr. Lindsay

874. I gather these figures are in the Blue Book?—Yes, or rather in the series of Blue Books. Of course, there were grants given by the Government, which are included in that sum, but the Company had to find £315,000 in order to build the canal.

875. It is not the same Company, is it?—Yes. Of course, it was reconstructed in 1849.

(Kearney.)

876. The Government grants amounted to £221,000?—Yes.

Mr. Field.

877. And the Company found out £800,000?—Yes. The greater part of the money granted by the Government was misapplied. They commenced on wrong lines in building the canal, and they had to suspend its construction altogether, as its cost would be enormous. The Company spent £230,000 on the Shannon, for which they got no compensation. The Government agreed to give them £5, but the amount was never paid. The floating and graving docks at Ringsend were completed in or about the year 1850, and cost £115,592. Through these docks the canal enters the River Liffey. The area of the floating docks is 24½ acres, the quays are 3,500 feet long, and the depth of water is 18 feet. There are two locks for seagoing vessels, the largest of which is 150 feet in length and 35½ feet in width. No vessel drawing more than 16 feet can enter the docks. The tonnage dues paid on ships entering the dock are 3d. per registered ton, and 1d. per ton on goods landed or loaded. Any vessel receiving or discharging cargo in the docks on which Grand Canal toll shall be paid will be allowed a drawback of 1½d. per ton in the case of sailing vessels, and 1d. per ton in the case of steamers, on the tonnage so received or discharged. In the year 1912 about 290,000 tons were discharged and loaded in this dock. As regards the development of this canal, it is difficult to say what can be done which you take into account the decreasing population, and the fact that there are so few industries outside the city of Dublin. According to the Report of the Royal Commission on Canals and Waterways, there were 1,153 persons per square mile in seven Midland counties in England served by canals, 217 persons in counties served by canals in the North of Ireland, 134 persons in counties served by the Royal and Grand Canals, and 56 persons in counties served by the River Shannon. Any large and comprehensive scheme would undoubtedly have to be undertaken by the Government, irrespective of the cost compared with revenue. It should be noted that the Grand Canal Company is the only canal in Ireland which acts as carriers on its own canal, in addition to being the principal carrier on the River Shannon, the property of the Government. To this fact can be attributed to a great extent the degree of success over other canals in Ireland. Regular sailings to the principal towns are essential if traffic is to be secured by a means of transport which is slower than that by competitors, such as railways. I should now like to deal with some of the matters brought before you yesterday by the members of the Irish Canal Boat Owners' Association who were examined.—Messrs. O'Hara, F. Thompson and M. J. Murphy.

It was stated that the canal was not conducted as a public highway, that it was devoted to the interests of one Company, the River Barrow being regarded by the Company as a feeder to the canal. Reply.—The River Barrow section of the Company's system is worked by the Company at a loss. This is in consequence of a war of rates, which commenced soon after this Company purchased the Barrow Navigation in 1894, and an increased cost of maintenance. Notwithstanding this the Company have maintained an efficient service.

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Mr. Field—continued

It was stated there was a shortness of water on the section from Naas to Dublin, due to the sale of water to different parties. Reply.—The water sold is redundant, and is taken in two cases at a point near Dublin, from which point there is always a sufficient supply for the navigation. The water taken by the Tinsbury Company at Ringsend Dock is for condensing purposes, and is returned to the dock, and cannot, therefore, affect the navigation. Since 1835 there have been no new pipes put in on this section, and a number of old agreements for water supplies have been cancelled, including a very large and important supply to the Dublin Distillers Company, not by reason that these supplies affected the levels of the canal, as the water taken was redundant, but merely that these users of water did not require supplies any longer, some of them having gone out of business. The restriction on output from the breweries and other distilleries have also reduced the quantity of water taken from the canal.

Evidence was given as to the want of dredging, and that boats on the River Barrow were able to carry only 18 tons. Reply.—A great deal of dredging has been done on the canal and River Barrow, the average cost per acre for the last ten years being much in excess of the previous ten years. A considerable amount of dredging has been done on the Barrow during the last twelve months. Last year the Boat Owners' Association called attention to this matter, when the statements which I now hand in were furnished to the Canal Control Committee.

Want of dry docks.—Reply.—The Company has two dry docks at Portobello, where most of the by-traders get their boats repaired. There are docks at Tullamore, Athy, and Carlow, all exclusively used by by-traders. There are also docks at Ringsend and Shannon Harbour which are often available.

Loading and unloading under cover.—Reply.—There is no obligation on the part of the Company to provide this accommodation for by-traders. If at any point stores are available, application should be made for the use of them. Many by-traders have stores rented from the Company for storing traffic carried over the canal. Reference was made particularly to the want of accommodation at Waterford. The Canal Company have no control over the Barrow from St. Mullins to Waterford. The Company trades to that part under the same conditions as any other boat-owner. Application should be made to the Port Authorities on the matter.

Attention was called to floods on the Barrow, and the fact that six to eight horses are sometimes required to haul boats. Reply.—The supply of water to the Barrow is derived principally from surface water, and in the upper reaches in winter extensive flooding takes place every year. The matter has been the subject of several parliamentary reports, and is one over which the Company has no control. On account of the supply being surface water the river runs to a very low level in summer. Boats have to be built specially with flat bottoms, and, although this is done, loads have to be frequently reduced.

New dock below St. Mullins.—Reply.—The Company could not undertake to build this dock. This question would have to be settled when a large drainage scheme was adopted.

I would like to draw the attention of the Committee to the concluding paragraph of the report made by Mr. F. Dudley Fletcher on behalf of the Canal Control Committee:—"In conclusion I would point out that this extensive waterway has many virtues and, in compensation few faults, but unfortunately in a report like this little is said of the virtues, but much of the faults." The date is the 15th October, 1917.

Mr. Hannon

878. Your trade on the Shannon is subject to the Shannon Navigation?—Yes, we are subject to their regulations.

Mr. Lindsay

879. You are by-traders?—Yes.

Mr. Field.

880. On that system, of course?—Yes.

881a. Not on your own?—No.

881. Supposing

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Mr. PHILLIPS

[Continued]

Chairman.

881. Supposing you were lightening a ship say at Athlone, what draft of water can you take there in your lighters?—About 4 feet 3 inches. We carry in our own boats an average cargo of about 40 tons. Of course, they only draw about 4 feet of water or under.

882. Is that due to the canal?—First of all there is the question of quick transit, and more than 40 tons is too heavy for a horse. Our haulage is horse and motor. To get a horse to haul more than 40 tons is too hard work.

883. What do you do with the motor?—The motors are about much the same. When we put on these motors nearly the whole of them were put into old canal boats. The expense of a new boat would be enormous, but it would be more economical in the end to build new boats. You could not, however, scrap the whole fleet of existing boats, the majority of which were good boats. The result was that we fitted the motor engines into some of them, and were not able to carry more than the horse-hauled boats.

884. You would with a new boat carry ten or fifteen tons extra?—You might carry up to 48 tons comfortably. You have got to consider the weight of the motor. It takes away from the carrying capacity of the boat.

Mr. Hanson.

885. Of course, the old boats were never designed to receive mechanical appliances at all?—No.

Chairman.

886. If you lightened through to Limerick, what draft of water would you have?—We could carry almost any draft of water from Limerick. The river is very deep. You could carry anything up to 100 tons. There is a boat owned by Messrs. Bannatyne on the Shannon which carries up to 80 tons. It cannot come on to the canal.

887. Are not these sections of the Shannon very difficult?—There is a shoalised part between Killahee and Limerick, but still an 80-ton boat goes up. When you come up close to Bagginash there is a very large lock.

Mr. Lindsay.

888. The Victoria Lock?—Yes.

889. The idea was to have steam navigation in that portion?—Yes.

890. The old "Duchess" used to run down from Athlone to Killahee?—Yes.

Chairman.

891. What time would it take a laden barge to go from Dublin to Bagginash?—Two days.

Mr. Hanson.

892. You are talking of motor driven barges?—I am speaking generally.

Chairman.

893. Has any estimate been made of the cost of deepening it from the Limerick side up—that is, the Shannon?—Yes. There have been some suggestions made by a member of the firm of Messrs. Bannatyne, who put a scheme before the Canal Commission. He suggested alterations in the lock and offered that his firm would build a very large boat, but the suggestion came to nothing. The difficulty is this—it is our Company that keeps up the Shannon. It is the money that the Government receive from us that maintains the Shannon. The amount received from other traders is comparatively small. It would not pay us to have special business on the Shannon.

Mr. Hanson.

894. It would mean transhipping when you got on to the Shannon?—Yes. We have to do a little of that at present. That, of course, means not only expense, but great delay to goods.

Mr. Field.

895. Is there any arrangement between your Canal Company and the Great Southern and Western Railway?—There is.

896. Has the effect of that pooling arrangement been to diminish the traffic on the canal?—Well, I will

Mr. Field—continued.

answer that in this way. Previous to the year 1900 there was a war of rates between the Grand Canal Company and the Great Southern and Western Railway Company which threatened to become a case of extinction. The Railway Company lost an enormous sum of money through cutting their rates, which I may say they have never been able to get up again. They are stereotyped now. The Grand Canal Company also lost a very considerable sum of money. The thing, of course, could not go on for ever. The Grand Canal Company did not want to be wiped out, and it became necessary to come to some agreement. The Canal Company entered into territory belonging to the Railway Company which was not, strictly speaking, canal territory.

897. The sphere of influence, I think, is what the Railway Company call it—I will explain what I mean by entering the Railway Company's territory by an example. In order to bring the Railway Company to its knees we started a service between Droichead and Nenagh and got an enormous amount of traffic. We carried at a lower rate than the Railway Company. We did a few little things like that in the course of the rates war, and the result was an agreement was entered into between ourselves and the Railway Company, one of the conditions of which was that we were to cease going to Nenagh.

Mr. Hanson.

898. This agreement appears in the Canals Commission Report?—Yes. The Canal Company as a result of the agreement were able to cut off their losses, and it stands to reason that no business firm could continue to work at a loss. Well, I contend this agreement has been of the greatest benefit to the public. The expenditure on canals, as well as in every other business, had increased prior to the war. The price of materials was going up all the time, and labour and local taxation were increasing in Ireland to a remarkable extent. There was increased liability for workmen's compensation, and quite a lot of other things that I could mention had also gone up. New money had to be got, and where was it to come from?

Mr. Field.

899. From the public, of course?—Either from the public or from somewhere else. This agreement with the Railway Company proved to be satisfactory for the Canal Company, and the result was that we were able to meet our increased expenditure without raising the rates on the public.

900. Your contention is that the arrangement between the Grand Canal Company and the Great Southern and Western Railway Company has been beneficial to the public?—Yes. Might I just supplement that in proof of this statement of mine I refer the Commission to the Report of the Royal Commission on the Canals and Waterways. You will find there that in 1888—which is prior to the agreement—the total tonnage was 291,000, and in the year 1912 there were 328,000 tons carried over the Grand Canal system.

901. So you increased your traffic in consequence of the arrangement?—Yes.

902. On certain portions of the Barrow have the facilities been decreased to consignors or to users of private owned boats. I will give you the name of my informant—Mr. Ward—and the place—Bagnalstown, Co. Carlow. Mr. Ward said that years ago there was an enormous number of canal boats on the river at Bagnalstown, but that there had been a marked decrease in the number of private owned boats now trading on the Barrow. Is that a consequence of the Railway arrangements?—No. It only affects the traffic carried in the Grand Canal Company's boats. That is a very important thing to know. It is to our advantage that so much traffic as possible should be carried in the "hy-traders' boats." Since the Grand Canal came under Government control we brought under the notice of the Canal Control Committee that these "hy-traders" found it very hard to carry on, and that we were particularly anxious that none of them should go off the canal, but we found that they were lying up their boats, and gave them no attention, and the result was that fewer boats were working on the canal. The recommendations of the Grand Canal Company were passed by the Canal Control Committee and by the Board of Trade. A scheme

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Mr. PHILLIPS.

[Continued.]

Mr. Field—continued.

scheme of payments was drawn up by me, which was put before the Committee and it was considered to be fair and reasonable for the extra expense that the by-traders were put to owing to increased wages, increased cost of materials, and all this kind of thing. Since that, a few months ago, the Boat Owners' Association made an application, which the Canal Company brought before the Control Committee, and the result was there was a very substantial increase given in the war bonus. Thus, of course, was all for the benefit of the Company, as well as for the by-traders, and the whole thing showed the anxiety of the Canal Company to retain all these by-traders on their system.

905. Do I understand that the policy of the Canal Company is to encourage as far as possible, as, naturally, it ought to, the coal traffic on the canal?—Certainly—most decidedly.

906. The reason why I ask this question is because we are afflicted with a coal shortage in Dublin. I have myself been on a deputation to the Local Government Board about it, and if we could get these heavy goods carried by canal, instead of on the railways, it would save so much coal on the railways, and, in addition to that, it would leave the railways more free—I might mention in regard to that, that in the busy times we could do with a good many more boats. The amount of agricultural produce that will be moved in about a fortnight's time will be very heavy, and it will continue until May next, but the whole difficulty is getting trained boatmen. The policy of the Canal Company is to encourage the transport of agricultural and other produce by canal, so as to reduce the demands made on the railway companies.

Mr. HANSON.

907. You spoke just now of the difficulty of getting trained boatmen?—Yes. It may seem an easy thing to navigate a canal boat, but it is by no means so easy as it looks. Passing through the locks, and the preventing of collisions with passing boats, requires training, and you cannot bring your boatmen off the streets.

908. They have to learn the route?—Yes. We usually get them as grown boys and train them. At the moment the difficulty is to get the trained men.

Mr. Field.

909. That is not an insuperable difficulty. You should train a man in a short time. Navigating a canal boat is not the same as navigating a Cunarder?—We have men on the boats on the canal drawn from certain districts, and they will not work with men drawn from other districts, which are, perhaps, 30 miles away.

910. There is a sort of geographical trades union?—Yes. The men who handle the flat-bottomed boats that we send to the Barrow are drawn from Carlow and Graigueanagh. The Graigue men will not go into the boats with the Carlow men, and vice versa. We have other men, drawn from Kilkenny, who will not work with men from other districts, and so on.

911. We waited on by a deputation on this matter, and I think it is very important. I understand now that the policy of the Canal Company is, henceforth, anyhow, to encourage as far as possible every facility being given for the transport particularly of agricultural produce, so as to reduce the demands that would be made on the railways?—Most decidedly.

912. I think it is as well that that should be made public, because there undoubtedly is an impression—I am not here to attack the Canal Company—do the contrary?—I quite agree that there is that impression, but it is an impression that is wrong. The people who make these statements are not acquainted with the real facts. I have been at some pains to explain the policy of the Canal Company in regard to encouraging transport on the canal, and the figures I have quoted are absolutely conclusive on that point.

913. What is the general speed of a canal boat with a horse or a motor?—I suppose about 14 miles an hour for the horse. You have to go through a number of locks, and there is great delay. The motor might be a little faster.

914. Was not this canal originally built by the Irish Parliament?—The directors of Inland Navigation commenced the work, and appear to have wasted the money.

Mr. Field.] Most Government Departments do

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Mr. Lindsay.

915-4. Is what you have been saying to Mr. Field the explanation as to why coal is taken to the Carlow Gas Works by railway instead of by canal?—Coal is a traffic that we would prefer should be carried by the by-traders. Take the case of one boat. That boat starts from Dublin to Carlow with a load of sundry goods. She comes back, perhaps, with a load of agricultural produce. If she loads coal in Dublin on the return journey she is in a filthy condition when she gets to Carlow. We are asked to put in a cargo of coal, and the result is injury to the stuff.

916. You don't care for the coal traffic to Carlow?—We have carried a considerable quantity of it. We are exempted by Act of Parliament from carrying coal.

Mr. HANSON.

917. You can refuse coal?—Yes, but we try to carry it if possible, if we have the time to wash out the boat and let it dry. That is when we are not busy.

Mr. Lindsay.

918. There was a matter raised by a witness yesterday in reference to the Barrow. Where does your jurisdiction end?—Our charter is to the Scars, near St. Mullins.

919. You go below the lock?—Yes.

920. The witnesses yesterday suggested a lock?—I am of opinion that it is below the Scars. I think the Port of New Ross exercises jurisdiction as far as the Scars.

921. It appears that your load of 40 tons is very small compared with the load taken on the Lagan?—I think the locks are a bit longer there. They are wider.

922. Your dimensions are given as 61 feet by 134 wide; draft, 5 to 6 feet, and the headway 9 feet. Five to 6 feet seems rather more than what was tried?—It is. Of course, you probably get these figures from the Report of the Royal Commission on Canals.

923. Yes; they were supplied by you?—It appears to me that there were a number of errors in the printing of the Report. There were numerous mistakes in the size of the locks.

924. In the case of the Lagan, the length and width of the locks is about a foot more, and I cannot see how there should be such a great difference in the tonnage carried?—I don't know much about the Lagan. I would like to say that, although the locks may be built to carry very heavy loads, the traffic which is carried on it is probably a very low class of traffic. It is considered that we carry a very low class of traffic compared with railways, but the Lagan is carrying even a rougher class of traffic, probably coal.

925. It is closer loading?—Yes.

926. We had several witnesses before us advocating state ownership of navigation. We have one instance of that in this country—the Shannon. As a matter of fact the Shannon is run at a loss if you take the tolls alone?—I think that it is a matter of controversy as to whether the amount of money we pay the Board of Works is sufficient for the upkeep of the portage we trade on from Carrick to Limerick.

927. Take the Shannon as a whole?—I am not sure but that they want to place some of the expenditure on the lower Shannon below Limerick against the upper part.

928. The Board of Works are not responsible for the lower Shannon?—I think they have something to do with it.

929. Is not there a Limerick port?—I think the Board of Works has something to do with the lower Shannon.

930. On the whole, the Shannon is a really fine navigation?—It is.

931. And there is very little traffic on it?—Yes. We are practically the only traders on it.

932. You still go to Carrick-on-Shannon?—We do.

933. Once a week?—Yes. Up to this year we went twice a week in the summer, but we have reduced to once a week as we could not get enough of traffic.

Colonel GRETTON.

934. Are the same boats suitable for running down the Shannon and the Barrow and your whole canal system?—The boats on the main line of the canal are not suitable for the Barrow. One of the peculiarities of the Barrow is that it is supplied with surface water.

We

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Mr. PHILLIPS.

[Continued]

Colonel Griffin—continued.

We build the boats with flat bottoms for that section. We could not send the ordinary boats on the Barrow.

934. Did you find that the motor boats were more economical than horse power?—That is very difficult to answer. During war times we don't like to make comparisons owing to the cost of all things required for the upkeep of the canal being inflated. There are no true prices to enable you to form an estimate since the war began, and to take the figures of 1912, when we had very few motor boats running, would be no use. We are waiting until the war is over and things become normal again to make comparisons.

935. Have you formed any opinion of the motor?—No decided opinion. Of course, we find that the motor had advantages and disadvantages. It is not like a steam engine, it is more likely to break down. It means increased cost of maintenance of the canal. The propeller causes a wash and stirs up sand, and means more dredging.

Mr. Field.

936. And the men have to get higher wages?—Yes.

Colonel Griffin.

937. Are the motor boats more rapid?—Yes.

938. What is the comparison in time?—I suppose it would be about four to three—four days for horse power, and about three for a motor.

939. In regard to getting the boats into berths in Dublin, can you go out into the Liffey alongside steamers?—Yes. We go out from the Ringwood Docks. The boats take loads of grain overboard from the steamer. There is a difficulty about taking stuff overboard from a cross-Channel steamer. In fact, you might say it cannot be done almost.

940. For what reason? The steamer will come in with a miscellaneous cargo. She might have ten tons for the canal, 200 tons for the City of Dublin; and 50 tons for the Great Southern and Western Railway, and so on. This stuff is not loaded accordingly on the steamer. You don't know when the canal stuff is going to come from the hold. The result is that you might have to wait one or two days for a ton of stuff. That is landed on the quays and taken to St. James's Street.

Mr. Field.

941. The cross-Channel steamers are on the north side?—Yes. Most of them. We send boats to the Alexandra basin. We have a steam tug on the river.

942. What class of traffic do you generally carry?—I have given the figures of grain produce and manures. We carry foodstuffs, porter and timber. People in the country are very fond of giving us engines instead of to the railways.

Mr. Lindsay.

943. Even if you have not taken them full?—Yes. I can put in a statement regarding the different commodities we carry over the canal.

Colonel Griffin.

944. And if you could divide the main line from the Barrow it would perhaps be as well. Is there much difference in the class of traffic carried on the Barrow and the canal?—It is very much the same.

945. There would be no necessity for any division in the return of the commodities carried?—No, I don't think so.

946. Can you inform us what your rates on the canal are compared with the railway rates?—Our rates on the canal run, according to the class of traffic carried, from 5 to 12½ per cent. lower than the railway rates.

Mr. Field.

947. In most cases?—With the exception of a few cases where the rates have been cut to such a ridiculous figure by the Railway Company that we carry at the same rate. Speaking generally, the rates are from 5 to 12½ per cent. lower than the railway rates. If they were not it would have been impossible for us to have got this 200,000 tons of stuff we carried.

948. In regard to the agreement with the Railway Company, when was that made?—In 1900. It was worked out to the benefit of our Company.

949. Are your boats fully occupied?—Yes, on the whole. At times things are a little bit slack. You might have a lot of traffic one way, and the other way

Mr. Field—continued.

it might be very poor. The moment the agricultural produce begins to move we want all our boats to carry the stuff. We will then endeavour, if the by-traders are not employed, to hire them and to make them live off toll for the journey.

950. Are the boats owned by the Company and by the by-traders sufficient to carry the traffic on the canal?—Not in the busy time during the war, but the moment the war is over we will be in a position to put on additional boats and to resume our normal services, because we will be able to get trained men.

951. Have you funds to provide the boats?—We have the boats.

952. The difficulty is as the marring of them?—Yes.

Mr. Hanson.

953. How long have you been General Manager of the Company?—Four years. I may also say that I am 37 years in the service of the Company.

954. During your 37 years' experience do you think that on the whole the relations between the canal and the trading and farming community have been fairly satisfactory?—Yes.

955. Yours is the largest canal system in Ireland?—Yes.

956. And you believe that the Company has given satisfaction to the community as a whole?—Yes, and in that connection I have to again refer to the increased tonnage of the canal.

957. From the figures you have given us, I see that 56 per cent. of the traffic on the canal is carried in the Company's boats and 44 per cent. in the private owned boats?—Yes, about that; I did not make out the percentages.

958. Does your Company in any way discriminate in determining rates on between boats owned by yourself and the boats owned by by-traders—or there any way in which preference is given to the Company's own boats as regards rates?—When the traffic is carried by the Company's boats the rate charged to the customer is an inclusive rate which covers all charges. In the case of the by-traders he pays no toll, which is for the maintenance of the canal and the upkeep of the lock-keepers. He has to pay for the upkeep of the boat. He pays a smaller amount than what we get from the trader who gives us goods to carry.

959. The maximum amount of the toll is fixed by the Lord Lieutenant?—By the Board of Trade. Possibly in older times the Lord Lieutenant fixed the tolls. They are fixed by the Board of Trade.

960. Is the determination of the maximum different from the Royal Canal?—As far as I know the Royal Canal does not act as carriers. We do, and our rates are fixed by Act of Parliament—by Provisional Orders passed by the Board of Trade—both rates and tolls.

961. Just tell us about the control of the Grand Canal. You talked about the Board of Control?—It is called the Control Committee. First of all there is the Canal Control Committee in London—a Department of the Board of Trade. There is an Irish Sub-Committee, which sits in Dublin, on which there are three representatives of the Board of Trade. Our Chairman, Mr. Waldron, is on the Committee, and Mr. Bos, of the Lagan Navigation.

962. You know that it is alleged against you that there is a very strong representation of the directors of the Canal Company?—There are only two Canal representatives on the Board—one representing the North, and the other the South. Our chairman, Mr. Waldron, is our representative.

963. In years the same experience as in the case of the Royal Canal—that the Board of Control does not meet and exercise control?—No; it is entirely different. The Canal Control Committee has regular meetings. I furnish them myself with most elaborate statements. They meet most regularly.

964. What do you mean by "most regularly"?—Never less than once a month, and perhaps sometimes in three weeks.

965. What kind of returns have you to send them?—In the case of disputes, they ask us for reports. They also ask us for a return of labour, the men employed on certain duties, and the statistics of the traffic carried. They keep a close watch on the canal. These returns we send are not only examined in Dublin, but in London as well, by the Control Committee there.

966. And

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Mr PHILLIPS.

[Continued]

Mr. Hansen—continued.

956 And they are published, I suppose, in the annual returns of the Board of Trade?—I don't know really.

957 Does any portion of your canal go through moorland and bog?—Yes, through the bog of Allen.

958 Do mechanically driven barges affect the banks?—It means an increased cost for maintenance. Where you have mechanical power on a canal you are bound to have an increased cost for maintenance. We did not perhaps consider that it would mean so much increased maintenance. We find that it has increased by more than we anticipated. At the same time we have not considered the question of abolishing the mechanically driven boats.

959 Take the section of a canal running through a boggy district, how much do you think the cost of maintenance would be increased by using mechanically driven barges?—I am not in a position to give any figures in connection with that beyond saying this—we find our maintenance charges for the last few years have increased, and we attribute that to the mechanically driven boats. It is a very difficult question to answer except in a general way. Suppose our expenditure on maintenance was increased by £1,000, there would be the difficulty of allocating that extra £1,000 to mechanically driven boats.

Mr. Lindsay.

970 Could you not differentiate in the way of locks or locks?—We keep our accounts separate.

971 Mechanically driven boats would not affect the locks?—Yes. They are more liable to strike a lock, and if they do touch it they do more damage than horse-drawn boats.

Mr. Hansen.

972 The representatives of the Canal Boat Association made charges against your company in their evidence yesterday, but I think you have dealt with most of them. They say that the dredging of the canal is not carried out as efficiently as it might be—it is carried out as efficiently as possible. We have two steam dredgers and one hand dredger working from January to December. In better years we never worked them in the winter months. In the very old days they were all hand dredgers. Thirty years ago the company had nothing but hand dredgers. We have now two steam dredgers and one hand dredger. I will put in a statement* regarding the dredging. I have it here. I find for the half-year to June, 1917, dredging cost £540, half-year to 31st December, 1904; 30th June this year, £1,240. I also have the dredging particulars for the river Barrow.

973 What about stores? Do you say you are not bound to provide storage accommodation?—No. There is no obligation on the part of the company to provide storage accommodation for by-traders, but we offer facilities for private sites for stores or if we have too much storage accommodation at a particular point we set them to by-traders or customers. A great number of by-traders have stores from the company, including Mr. Odum, who gave evidence yesterday on behalf of the Boat Owners' Association. Mr. Williams, of Tullamore, has several stores from the company. He has a distillery there. He has a general business as well.

974 Do you think it would be in the interest of the area served by your company to enlarge the dock at Ringwood?—If public money were spent in lengthening the Camden lock I think it would be a matter of public utility.

975 Perhaps you would answer the question I put. Is your judgment if the docking accommodation at Ringwood were enlarged by expending public money on it would it reap beneficially on the whole area served by your company?—It is a difficult question, increasing the size of the dock, but you could increase the size of the lock. That would be to the public advantage. The reason that the company could not undertake that is because it is a large item of expenditure.

Mr. Keating.

976 What is your reply to Mr. Shackleton's statement that there is a differentiation of rates in various

Mr. Keating—continued.

parts of your system?—Unfortunately I was not present to hear the details, but I shall endeavour to answer your question. Probably at the time of the war of the rates with the Railway Company we were attacked more severely at some points than at others. The result was that we had to reduce our rates in a larger proportion at some points than at others. I may tell the Committee that this is a very common thing to do in the case of carrying companies. It is quite a common thing in England, as well as in Ireland, to have this differential rate we will call them where rates in one centre were brought down owing to peculiar circumstances—in some cases owing to competition of steamers. You will find, for instance, between Grangemouth and London, when the steamers commenced to run there originally, they brought down the railway rates at once. You will find numerous instances like that all round the country. It does not follow that because the Railway Company in such a case found it necessary to make a reduction in their rates in order to meet the competition of a steamship company that they are to make a reduction all over their system.

977 Thank you very much. I wanted to hear what you had to say on this point. You used to run a service between Waterford and New Ross?—We have it there.

978 Is it still running?—Yes.

979 My information is that it has been suspended indefinitely?—No. Our boats are running three regularly. Waterford is our terminus at that end. We want to very considerable expense in building stores at New Ross.

980 With regard to future developments, have you considered the possibility of applying electrically driven apparatus to your system?—We have done so only to a very small extent and in a very superficial way. It seems almost plain on the surface that it would not be successful in the case of the Grand Canal in the present state of Ireland, that is, taking population into account. Thus electrically driven apparatus might do very well on the Continent, where they have enormous traffic, but it might result in the question of putting up poles and trolleys. It would be a matter of enormous expense, and I don't think the traffic of the country would warrant it.

981 You don't think the extra volume of trade would justify it?—It would not come. My opinion is that what is at the root of the whole matter is the want of industries in the West. In Waterford we have a few industries, and in Waterford and Cork. You have absolutely no industries in the West.

982 Manufacturing industries are what you would want?—Yes. There is a complete dearth of these in the West of Ireland.

983 You would not recommend the Committee to seriously consider the question of electrically driven apparatus?—No, I would not think so.

Chairman.

984 Your tolls are fixed for you?—Yes.

985 Your Company is a trading Company also?—Yes, but we are not compelled to act as traders by Act of Parliament.

986 Do you keep your trading accounts separate from your canal accounts, or do the profits that you make on your trading go into your canal accounts?—If we want to ascertain the trading accounts specially we have got to make out a special statement in connection with it. In our half-yearly accounts we have a carrying account.

987 You said that if the by-traders wanted to put up stores, you were ready to give them ground?—Yes.

988 On what sort of lease?—We give them a long lease. We are only too glad to give it.

989 Are they allowed to let other people use it?—When we give a site for a store we put into the lease a condition that it is to be used for canal purposes—for traffic passing over the canal, otherwise there would be no use in giving a site.

990 Can other by-traders arrange with the people having the sites to use them?—Yes, we make no objection; in fact, I can give you an instance of that where one customer gave it to another customer for a certain time.

991 Have

* Statement not received.

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Mr. PHILLIPS.

[Continued]

Chairman—continued.

992. Have you tried using motor boats for towing your barges?—Yes. We have a section of the canal between here and Robertstown, 25 miles. We have a level on the canal for 20 miles long, and from the commencement of that way we tow the barges right into the Shannon.

Mr. WILLIAM TAYLOR, B.A., Director, Arigna Mining Company, called in; and Examined.

Chairman.

994. I understand you represent the Arigna Mining Company, Mr. Taylor?—Yes, sir.

995. You can tell us something about it?—It has been mining for 35 years, and it is engaged in exploiting the minerals of the Arigna Valley, to the west of Lough Allen. It contains the following minerals—coal, iron ore, flagstones and fire-clay. Up to the present the company has been only able to utilise the coal and the flagstones. The mining is done by means of adits which enter into the mountains. The coal is of three qualities practically—a free burning coal, a coal suitable for steam raising, and another coal which is almost anthracite. The iron ore and fire-clay cannot be worked for want of transport. The fire-clay occurs as a 3-ft. seam and makes good bricks. The iron ore is abundant and of good quality. In the raw ore, there is from 35 to 40 per cent. of iron and over 50 per cent. in the calcined ore. There is a considerable quantity of this ore in the valley. It consists of nodules of iron-stone in thick beds, and there is, as I have said, a considerable quantity of this ore in the valley. The road up the valley is 3½ miles long from Arigna Station to the mines. It is very bad, and impossible in frost or snow. A railway extension is now under construction. It will connect the mines with the Cavan and Leitrim railway, and the cartage will be done away with. In order to utilise this new railway and the facilities which it will afford, the capital of the Arigna Mining Company has now been increased to a large extent.

Mr. HENSON.

996. By how much?—It is being tripled practically.

997. That is how much?—Up to £15,000. The Cavan and Leitrim Railway from Arigna touches the Shannon at Lough Allen beside Drumshambo, which is not far from the mines. It also approaches the Shannon at Rosky near the terminus of the line at Droghed. It is very important to connect the mines with the Shannon navigation because (1) there is considerable coal already sent to Limerick, from 2,000 to 3,000 tons annually; (2) the distance by water to Limerick is more direct than the railway via Orloway, and therefore cheaper, apart from other considerations; (3) iron ore and fire bricks could only be developed by water carriage, and (4) many towns could be reached by water over the Shannon—Carnock, Athlone, Banagher, and towns on the Royal and Grand Canals. The possible schemes for developing this water traffic are the improvement of the Lough Allen Canal, 4½ miles from Drumshambo to Bellefleur Bridge, near Leitrim, and the railway extension to Rosky. Lough Allen Canal is shallow and narrow, and has sharp bends in places, and the working depth is 4 feet 6 inches. There are two locks on it. The Drumshambo Lock is 67 feet 4 inches long and between 13 and 14 feet wide. The Bellefleur Lock is 75 feet 6 inches long, and only about 12 feet wide at the water level. The canal might be improved to take barges of 30-ton capacity, but the proper course would be to remake the canal so as to take 80-ton barges, as the working cost of large barges is much less than small barges, and those would go right down to Limerick. The second possible arrangement would be to connect the railway at Droghed with the Shannon system at Rosky. This would be cheaper, but it would not relieve traffic on the railway, and the working cost would be higher. It is estimated that the total output of coal in the district when the railway is completed will be raised from about 85 tons a day to 350 tons per day, and this will provide freight both for the railway and canal cart from iron and other minerals. We would ask the Committee to give the connecting to the Shannon navigation their serious consideration. My view is that the improvement of Lough Allen Canal is the best scheme, as it would permit of the use of large barges right down to Limerick.

Mr. HENSON.

992. We will ask you to put in your half-yearly accounts for the last 10 years?—I shall do so.

Mr. PHILLIPS.

993. Is there much change in the rate of toll for 10 years?—Very little—a very small increase.

Chairman.

998. What is the length of this new railway that is under construction?—About 3½ miles.

999. It is a narrow gauge?—Yes. It is an extension of a narrow gauge.

1000. Are you arranging in case the standard gauge was down that you would put down a third rail?—No. The Board of Works are building the railway.

Mr. HENSON.

1001. It is being constructed as a war measure?—Yes.

Chairman.

1002. Have you any estimate as to the cost of improving the Lough Allen Canal?—Not personally, but I believe there have been estimates. Between £20,000 and £30,000, it is stated, would make a good canal of it, but I really cannot substantiate that figure myself.

Mr. HENSON.

1003. Is it not the fact that this whole question of dealing with the development of the Arigna district is as old as the present generation or the generation before?—It is very old.

1004. It is generally accepted in this country that the development of Arigna would enormously increase the wealth of this country?—Yes.

1005. And it is not a fact that a series of private companies have tried to develop the Arigna coalfields for many years?—We have been 30 years working.

1006. There were other companies?—A great many years ago there was a company working the iron.

1007. The whole difficulty of any great scheme of development would be the transport?—Certainly.

1008. And in fact the key of the whole difficulty has been the question of getting a railway to some port or market or some place to control its consumption or distribution?—That is right.

1009. This fact has arisen out of the war—that the Admiralty has recognised the importance of the Arigna district as a coal-producing area?—The Government has recognised it.

1010. Anyhow, you have this to your credit in now proposing to ask assistance from the State to develop the district, that in the middle of a great war the Government felt that it ought to extend the existing line in order to afford you transport facilities to get your coal out?—That is being done.

1011. You think the development of water carriage would be most important in getting the mineral products of that region over the country?—Yes.

1012. You confined your observations to the Shannon, but could not the products be taken up by the Royal Canal?—I mentioned that we could develop into the side canals. The advantage of the Shannon is that we would pass through large ships as compared with the canals.

1013. Are you aware that a very successful experiment was carried out taking coal from the Arigna region before this line was extended at all, and taking it by water to Dublin and selling it in Dublin as a business proposition?—The experiment was tried, but I don't know if it was successful.

1014. We will get other evidence on that?—I don't think this canal in its present condition would permit of anything of that character. Lough Allen Canal is the weak point.

1015. You said that there was no estimate made of the cost of making water facilities efficient for the conveyance of mineral products at present. Lough Allen is not now practicable?—No. I think roughly the cost would be between £20,000 and £30,000 to make it practicable.

1016. And the output would be increased from 85 to 350 tons a day?—Yes, when the new railway is finished we expected to have that increased.

1027 B

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MR. TATLOW

[Continued.]

Mr. Hanson—continued.

1027. It is a fact, I believe, that various representatives of the Government have given different estimates as to the productive capacity of the Arigna district.—Yes. There was a great difference of opinion.

1028. I suggest that it is worth the while of your company and of the Cavan and Leitrim Railway Company, to put all the energy possible into the development of that region, and I suggest that you ought to present to this Committee a memorandum embodying, firstly, the history of the development of the Arigna district; secondly, the enormous advance that has been made in previous experiments; thirdly, the estimated cost of making the canal efficient as a medium of transport for getting into the Shannon, and, fourthly, what amount of local support will be forthcoming in the event of the State giving you a subsidy.—Yes.

1029. Then the Committee will be very sympathetic with any effort to develop that region?—Thank you.

Chairman

1030. I am afraid we cannot develop the transportation?—That is the whole question.

Colonel Grefson.

1031. Where is the Lough Allen Canal?—It reaches from the south point of Lough Allen parallel to the Shannon to the town of Leitrim. There are rocks in the river, which necessitate a fall of approximately 22 feet in the river.

1032. If the Lough Allen Canal were made useful, how would you deliver your materials?—From the narrow-gauge railway at Drumshambo, which is close to the opening of the canal from the lough. The minerals must be transhipped under present conditions owing to the narrow gauge feeding a broad gauge, so that the transhipping into the barges would not be more serious than in transhipping from one wagon into another. Transhipping damages the coal.

1033. To what market do you want to get your coal?—Limerick we find is a very good market. We would also like to send it down to the inland towns—Mullingar, Tullamore, and to send it to Carrick.

1034. Would you consider sending it into Belfast?—No. The canals would not serve.

Chairman

1035. What about your iron ore?—We would have to send it to England for smelting. Of course that is a difficult question, but iron ore has increased in value.

1036. Where is the demand for flagstones?—We sell them all over the country.

1037. There is a general, not a localised, demand?—Yes.

1038. Is there any difficulty in getting labour to work the minerals?—Up to the present we can get quite enough labour, because we are limited in our output by the transport, but when the transport facilities are improved, we will have, no doubt, a struggle to get enough labour, but we anticipate we will be able to get it. Many of our young men go to the mines in Scotland. If we could give them employment, they would remain at home. We employ 30 or 40 men for carting, and they would be available for mining.

1039. What is your maximum output of coal?—12,000 tons is our maximum.

1040. The area mines are practically undeveloped?—Yes.

Mr. Hanson

1051. About the quality of the coal, was it not the case that at one time the Cavan and Leitrim line used Scotch and English coal?—Yes. We could not provide a sufficient quantity to them. I think the railway company are satisfied with the quality of our coal.

1052. I think it was a question of quantity rather than quality?—We gave it cheaper.

1053. It was not so good?—I think we are getting in our new mine as good a quality of coal as is sold, but in some of the mines it was inferior.

Colonel Grefson

1054. Is any of your coal used for ships' bunkers?—I think the steam coal we have would be quite suitable.

Colonel Grefson—continued.

1055. Have you taken advice?—No, we never sent it to an expert. I have seen it stated that our coal was better than the Scotch coal—that is, our new mine. The new mine is running for about two years.

Mr. Lindsay

1056. When this railway line is made it will do away with the carting business?—Yes, we will load directly into the wagons.

1057. When you get to the bridge at Drumshambo, you will have to put in a siding?—Yes.

1058. And tip into the barges?—Yes.

1059. You said you thought that an 80-ton barge could go to Limerick if the Lough Allen canal were put into order?—Yes.

1060. Have you seen the locks?—Yes. There was evidence before you to-day that an 80-ton boat came through the locks. I was informed of much the same myself.

1061. Of course, you know that the Lough Allen Canal is in a deplorable condition, and do you think you are not under-estimating when you say that £30,000 would put it into a good condition?—That was the figure which was suggested to be sufficient.

Colonel Grefson.

1062. Was that a pre-war estimate?—I have added something on. I think when the war is over it would be a fair estimate.

1063. You would have to reconstruct two locks—one at Drumshambo, and the other at Ballybridge?—Yes.

1064. You are going a very long way down the Shannon when you are going to Limerick, and the question arises is it worth the expense necessary rather than try to use the rail or possibly alter the gauge and make it the standard gauge? I am absolutely opposed to the narrow gauge?—I quite agree.

Mr. Field.

1065. Do I understand that you are here in the interests of this coal field, the fireclay and the iron ore?—Yes. Without transport facilities it is impossible to develop the iron ore or fireclay.

1066. Is the great difficulty to the development the want of transport?—Yes.

1067. Have you any idea as to the quantity of coal in the district?—The district is said to contain from eighteen to twenty million tons.

1068. And at present, how many tons are you able to mine in the year?—12,000 tons by our Company. There are some other people also working in the district.

1069. How much altogether?—About 20,000 tons per annum.

1070. And that is mainly in the locality?—Mostly.

1071. Is the Lough Allen Canal working at all or is it derelict?—I think it is derelict.

Mr. Lindsay

1072. Have the Board of Works not maintained it at all?—I don't think there has been any use of it.

Mr. Field.

1073. So that practically you will have to reconstruct that canal?—I think so. I think any expenditure in merely improving it would be waste of money unless you reconstruct it.

1074. £30,000 seems a very small estimate. Are you rather in favour of water transport in connection with the development of the resources of this district?—I am, because the Shannon is such a fine system of water transport and covers such a large district. It is open water in many places, and you could travel fast.

1075. You would also be able to utilise the Royal and the Grand Canals?—Not to the same extent, because the canal boats would be smaller than the boats you could use on the Shannon.

1076. With regard to the railway, have you thought how the narrow gauge railway is going to affect the produce of the mine—the enormous cost which transhipment from the narrow gauge will involve?—The question of cost is not so very grave, but the coal is damaged and the transhipment is objectionable.

1077. Have

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MR. TAYLOR

[Continued]

Mr. Field—continued.

1057. Have you any experience of the freelay?—The bags are the only things we sold in recent years. We sold a certain number in the country until recently, when we put our whole energy into the coal.

1058. I would suggest that you would give us a kind of synopsis of the whole business in regard to the Arigna district?—My proposal is to impress on the Committee the importance of the opening up of the canal. I believe it is practicable.

1059. You would have to give us some evidence before we could adopt that. You have given us very little definite information. In two or three days you cannot obtain very much information of the character you require.

1060. You might send into the Committee a statement later on?—Yes.

Colonel Gretton.

1061. Might I ask if you know who are the owners of the Lough Allen Canal?—The Board of Works. They run the Shannon navigation.

MR. EDWARD H. ANNEVY, D.L., President Dublin Chamber of Commerce.

1062. You know our terms of reference?—Fairly well.

1063. Our duty is to look into facilities for transport afforded by the ports and canals in Ireland, and we are very anxious to get information as to what can be done towards improving them?—The time at the disposal of the Council was not sufficient to allow for the preparation of detailed evidence and the consideration of such a vast problem as Transport in Ireland.

I would like to take the present opportunity of mentioning, in a cursory manner, a few matters which might be of interest to the Sub-Committee now sitting, and, with the permission of the Sub-Committee preparing, and forwarding to them a detailed statement* at a later date.

1071. We will be very glad to receive it?—That will be done if you give us a little time to get the necessary information. I will mention shortly what I want to say to-day. Without doubt the Port of Dublin suffers from lack of sufficient accommodation. The berths at the quay wall are not sufficiently deep to accommodate large steamers, and in the past vessels of some considerable tonnage have been damaged as a result of the lack of sufficient water. There is no railway connection on the South side of the river between the quays and the Dublin and South-Eastern Railway, with the result that all goods for the country districts have to be carried to the various railway stations, and thus the loop line railway is not taken advantage of to the extent that it should. In Dublin there is only one graving dock, and it is of inadequate size. It frequently happens that vessels have to go to other ports for repairs because the existing dock would be occupied. The canal should be free from Railway Company control. The Midland Great Western Railway Company are the proprietors of one canal, and there is hardly any traffic on that canal at present, nor has there been for many years past. The canal traffic could be greatly improved by having boats propelled by modern methods, i.e. either by petrol or electricity. The railways, as the result of the great increase in the cost of working brought about by the large increase in wages and other working expenses, will not be in a position after the war to carry certain classes of traffic at economic rates, and therefore the canals of the country must be properly developed if Ireland is to have a share in after-the-war trade. I was pleased to hear the evidence in reference to the Grand Canal. I don't think we have any cause to complain at all of the accommodation given by the Grand Canal, but what we do complain of is that other canals in Ireland are not more developed than they are, and that more modern means of propelling the boats are not utilized. We know they are utilized on the Continent, and we think the same thing should be done in Ireland, but, of course, I do not wish that anything I say should be put in opposition to the expert evidence given on that point to-day. With regard to railways it is a well-known fact that Ireland suffers

Colonel Gretton—continued.

1063. It is part of the Shannon navigation?—Yes. It is not used. It has been practically abandoned.

Mr. Field.

1063. Do you mean to say it was built and never used?—At one time it was used, but I never heard of anyone using it in later years.

Colonel Gretton.

1064. The Committee would be greatly influenced by the value of the products as to the kind of recommendations they would make. Can you furnish us with expert evidence as to the quality of the coal and iron ore in the Arigna district?—I give the amount of iron in the ore—30 to 40 per cent. in the raw ore. This is said to be a very good ore.

1065. That is what we want to learn?—I can give you the analysis.

1066. Is it by a competent man?—Yes.

1067. And also an analysis of the coal?—Yes.

1068. If the coal and the iron were of a high value we would be able to make a certain recommendation?—Yes.

CHAMBER OF COMMERCE, called in; and Examined.

Chairman—continued.

greatly from through freight. Customers in places in the South and West of Ireland are able to get goods cheaper from towns in the Midlands and South of England than they are able to get them from Dublin, and something should be done whereby the Irish Railway Companies would place the Irish manufacturer on the same basis as his British competitor. This would stimulate industry in the country, and would in the long run lead to better transport facilities. It is well known that the careless handling of traffic on the railways is becoming a serious matter. The Department of Agriculture can bear witness to this. Railway porters after their appointment should be lectured on the handling of goods. It does not matter whether the Railway Company or the merchant is the loser by broken goods, the loss is eventually made up by increased freight. I am very pleased to be able to say that lately we have been able to make arrangements with carriers to collect not only parcels, but to give an inclusive charge for delivering goods throughout the country. They are making arrangements whereby they will call at the various warehouses and shops and give an inclusive rate of delivery in the country. That is a very great advantage to the country. We also think as regards the canal that the matter of transshipment is a serious thing. We have strongly supported Galway as the site for a Transatlantic port. As a Chamber of Commerce, we have gone into the matter very carefully, and we are strongly of opinion that with the assistance of the State an enormous increase in the prosperity of the country would take place with the landing of mails and merchandise on the west coast of Ireland. We have passed a resolution at our Chamber of Commerce advocating the Galway route. We are of opinion that a Transatlantic port in the West of Ireland is absolutely necessary, and we are strongly of opinion that Galway should be the port of call. We think this route would shorten the journey considerably, and we are not hopeless of seeing before very many years have gone by a train ferry across to Holyhead. We believe that to be feasible. We are very much interested in the development of the Galway route because we believe that the future prosperity of Ireland is very much dependent on that route. My remarks have been hurriedly arranged, and I have not been able to deal with matters as satisfactorily as I should wish, but we shall ask for permission to forward you a more detailed statement from the Chamber of Commerce. If we get a week or ten days we will prepare it. I had very little time to get any evidence to put before you, but I thought I ought to appear here.

1062. We are very much obliged to you. You said that the through rates to the interior parts of Ireland were injurious—I presume you mean injurious to Dublin?—Yes. Through rates from towns in the Midlands and South of England.

1063. That the through rates from the industrial portions of England to the interior of Ireland are prejudicial.

* Statement not furnished.

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Mr. ANDREWS.

[Continued.]

Chairman—continued.

local to Dublin?—Yes. They get an inclusive rate right through.

1076. Is the rate a proportionate rate for Dublin as against a town in the interior? The rate that you would be charged here, is that higher in proportion than the rate to a town in the interior—as far as I am aware it would cost as little almost to send goods from, say, Birmingham to Cork as from Birmingham to Dublin, and therefore it stands to reason that we are paying more.

Mr. HANSEN.

1075. Do you think the Dublin Chamber of Commerce would endorse a proposal that public money should be expended on the enlargement of the lock spring access to the Ringsend Dock in order to give facilities for greater traffic in the area covered by the canal?—What we do say is that some facilities should be given for transhipping from the steamer to the canal.

1076. There are some already?—Yes, but they should be improved.

Mr. LINDSAY.

1077. About the through rates, you could not say, from yourself, that if you take cotton from Manchester to Athlone, the rate would be very little in excess of the rate from Dublin to Athlone?—I doubt if it would hardly be in excess at all. If a person had to bring cotton from Manchester to Dublin and bring it down to the country, he would have to pay more in freight than a merchant in Manchester would pay to get it through to Athlone. The same thing occurs, as far as I understand, with regard to ordinary passenger fares. It is practically as cheap to get from London to Cork or Belfast as to Dublin. The difference is practically nothing.

1078. It is quite true what you say about passenger fares. You are brought up against the fact that there are low rates to Belfast owing to competition. It is not that your Dublin fares are high, but our Belfast fares are low. I don't want you to think that we in Belfast were unduly favoured?—You know how to look after yourselves in Belfast, and we want to look after ourselves in Dublin.

Mr. HANSEN.

1079. Is it not a fact that the Dublin Chamber of Commerce is the oldest Chamber of Commerce in the United Kingdom?—Yes, it was established in 1783.

1080. Even before that it was in existence?—Yes. It is different in many ways to other Chambers of Commerce because we have newspaper notices.

Reverend J. G. DUNCAN, Director of the Cavan and Leitrim Railway Company, called in; and Examined.

Chairman.

1081. I understand you are a director of the Cavan and Leitrim Railway Company?—Yes, and also of the Arigna Mining Company.

1094. We should be glad to hear some evidence from you?—I may say that I am in a worse position as to giving evidence even than Mr. Andrews, because I have only at a quarter past 4 that I should be called upon. I have not prepared any statement, but I shall do my best to answer any questions you may put to me. With regard to the extension of the railway at Arigna, it is a Government job, and is intended to do what we have for 25 years been trying to do—that is, to get railway facilities to the mines. The extension is of the Cavan and Leitrim Railway, and is a distance of 3½ miles. We had all the Chief Secretaries for Ireland during the last 32 years at Arigna. We began with Mr. Leith, and we ended with Mr. Shortt, and now the line is being made. Mr. Long got a Government grant of £29,000, absolutely free. Unfortunately, we were held up by local opposition. Our Bill went to the House of Commons, but when it came to the local authorities it was rejected. That is an occurrence which we are accustomed to in Ireland; we cannot live without it. Then came Mr. Birrell, who did the same thing, but we were again held up by local opposition, and our grant of £29,000 was the property of the Tralee and Dingle Railway. They were in an impetuous condition, and Mr. O'Donnell, M.P., stepped in and got the money (which was earmarked

Mr. FIELD.

1081. About the through rates, is it your contention that goods could be sent from any of the manufacturing districts in Great Britain cheaper to the centre of Ireland than you can get them from your place, relatively of course?—Yes.

1082. And you hold that that is unfair to the Dublin merchant?—Yes. I shall give instances of that in the statement I shall send in.

1083. With regard to the railway route, have you considered whether it would be an advisable thing to make Galway a Transatlantic port for mails and passengers and light parcels outside of the heavy goods that would come in the ordinary Transatlantic steamer?—Yes, that has been the opinion expressed by the Chamber of Commerce.

1084. Cork is a sea-board?—I am speaking of rail. I am not speaking of a case where the sea is competing with the railway, but of a through rate by a railway company like the London and North Western.

1085. Then you think that the town in the interior can really get goods at as low a rate of freight as you can get them in Dublin?—Yes.

1086. About the Transatlantic port at Galway, have you thought how you would handle the dead weight in the Transatlantic steamers that would come into port?—No. I think that is an engineering problem.

1087. No, it is a problem of what you would do if you take the ocean liners into Galway. You would bring your passengers and mails to Dublin, but what would you do with the dead weight?—That is a very awkward problem. The same thing always applies, though, to everything that comes into Ireland.

1088. Could not portion of the staff be handled here?—Not as Galway is at present, but is there any reason why they should not have facilities?

Colonel GORTON.

1089. The facilities are providing the port?—I have not thought it out. It is an important matter.

1090. The reason I asked is because the Chairman put it to you what would be done in regard to the heavy traffic?—We never really took that into consideration. We never thought the dead weight would come that way.

1091. That was not the intention of the Council of the Chamber of Commerce?—No.

1092. It referred to the light goods that required quick delivery and passengers and mails?—That is so.

Leitrim Railway Company and the Arigna Mining Co. and Examined.

Chairman—continued.

for railway purposes, for the Tralee and Dingle Railway. When Mr. Birrell came we converted him also to Arigna, and we were offered a Government grant, but we were always up against this local opposition, and the project had to rest until the Defence of the Realm Act came into operation. Then we brought down Mr. Duke and afterwards Mr. Shortt. Mr. Shortt grasped the whole situation in about an hour, and gave orders for the line to be constructed. It is now being constructed by the Board of Works. A question was raised as to the gauge. To make a broad gauge about £200,000 would be required. To make a narrow gauge £50,000 is sufficient. I put the question before Mr. Shortt and Mr. Burgess. I said, "You require coal immediately. We can make this short extension for £50,000, and turn out our coal before Christmas, but if you insist on the broad gauge, it must go to the Treasury again, and you hold up the whole thing for at least two years, and probably until the crack of doom." Mr. Shortt said, "You are right, and we will go on." The extension is being built broad enough to take a third rail. With regard to the transshipment of coal, we intend to have what I may call dummy tracks on our wagons. We shall run the coal in the ordinary batches down to the valley and tip into the wagons. These five-ton wagons will go to the broad gauge. The dummy will be craned, the bottoms will be opened, and the coal dropped in almost as carefully as bottles of whisky.

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Reverend J. DIGGES

[Continued]

Chairman—continued

I believe in that way we will save the breaking of coal about our output at Arigna you have heard already that it stands at about 12,000 tons a year. If we had an output of 12,000 tons we could not take it to the railway. We have simply to get our coal down in carts. We have been able to transport never more than 2 per cent. of our output. At the present time the local people go up to the mines with their carts and get their coal. Guinness's are prepared to take all the coal we can turn out. Another large trader takes the whole run of one of our mines. We hope when the new line is made to turn out in our first year 70,000 tons of coal. We have at present to concentrate all our energies on the coal mines, because of the present urgent cases. After that, we will work the other minerals. A book was published on the quality of the minerals some years ago, and it contains the analyses made by competent people—some appointed by the Government and some by ourselves—and they show that the quality of our iron ore is better than Glasgow ordinary. As for our coal, we have been using it for 30 years in the locomotives of the Great and Limerick Railway Company. We find that we can get 10 per cent. more steam from our coal than from Welsh or Scottish coal, and it is much cheaper. The Arigna Mining Company was started to provide locomotive coal for the engines, and began by selling at 12s. a ton. At that time the price of English and Scottish coal was 20s. a ton. We want to send our coal to Dublin. We think we could put our coal into Dublin very much cheaper by canal than by railway, but water facilities will become still more important when we come to handle fire clay and iron ore. I am told by what is called a very "knowledgeable" man in the district that some of the road contractors are using stones from the canal locks for repairing roads.

Mr. Field.

1065 They stole a railway, and when a railway was stolen it is not surprising to hear that the stones of a canal have been stolen. How do you manage about the delivery to the barges?—The same way as to the railway tracks. We would erect up the dunnage trucks. If we even had a third rail and a broad gauge, we could not afford to send our waggons to Belfast and down to Limerick and Dublin, because we would have to enormously increase our rolling stock. There is a very large demand for our coal from Sligo, not only for the lunatic asylum and the Board of Guardians, but for mercantile purposes. I was told by a Member of Parliament, so it must be true, that they were about to have very extensive developments in Sligo almost

(The Sub-Committee then adjourned to Westford on the following afternoon.)

FOURTH PUBLIC SITTING—THURSDAY, 12TH SEPTEMBER, 1918

At the CHAMBER OF COMMERCE, WEXFORD, at 2 P.M.

MEMBERS PRESENT:

Colonel John Grotton, M.P.

Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.

Mr. P. J. Hannan.

Mr. PHILIP MACNEULT, Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., in the Chair.

Chairman: Gentlemen, may I point out, first of all, what the duty of this Sub-Committee is? The House of Commons, as perhaps you are aware, in August last ordered that a Select Committee be appointed for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and co-ordination; and to ensure that such developments and improvements shall be adequate and suitable to meet the national requirements. The first thing the Committee did was to appoint a Sub-Committee to investigate and report upon the facilities of transport offered by the ports and coasts of Ireland, to make suggestions for their equip-

Mr. Field—continued

ment and development, and to visit such places as they may think necessary for this purpose. We thought your ancient city was one of the places we ought to visit, and we have come here to ask you to help us in investigating the facilities of transport offered by the port of Westford and to make suggestions which we shall be glad to lay before our Main Committee early in October. That is really the reason why we are here to-day, and we shall now be glad to receive any evidence that is offered to us.

Mr. Lindsay.

1066 There was a Provisional Order suggested by the Reconstructing Grand Jury in connection with a line of railway?—Yes.

1067 Did something go wrong with it?—Yes.

1068 But at the same time the line went into Reconstruct?—Yes. The Chairman of the company was the late Lord Kingston, and he gave a personal undertaking to pay the rates on that little portion of the line, so the railway ran on and stopped in the middle of a bog.

1069 At the present Arigna Station?—Yes.

1070 And it was subsequently proposed to extend it from the station to the mines?—Yes.

1071 And that was blocked?—Yes, on two or three occasions, as I have explained, owing to local opposition.

1072 You said that there was a difference of opinion between £250,000 and £300,000 in the cost of construction of the narrow and broad gauge?—That was to extend to the Milland at Carrick. When Mr. Stewart came to us it was suggested that a broad gauge should be made to connect with the Milland at Carrick.

1073 This £300,000 would not reconstruct the whole system?—By no means.

1074 You said you would be short of rolling stock if you sent coal over the country?—Yes.

1075 Of course, if you had a broad gauge, waggons would also come from other lines?—Yes.

1076 You would not be obliged to provide all the waggons?—Our guaranteed nominal capital is £100,000. We have spent all that except £2,000, so that won't go very far in building waggons, and we shall want that money and more to put on locomotives. Our locomotives have been running now for 30 years.

Colonel Grotton.

1077 What is the publication to which you have referred as containing the analyses?—Modesty prevented me giving the name of the writer. It was a book* I wrote myself on the subject. If you wish I shall be glad to supply the Committee with a copy-free of charge.

Chairman: We shall be very glad if you will kindly do so.

1108. We

* "Fighting Industries and Financing Emigration in Ireland, 1906"—By J. G. Digges.

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Mr DAVIS.

[Continued.]

Mr F. W. DAVIS, High Sheriff of Wexford, called in; and Examined.

Chairman.

1128. We shall be glad if you can give us some information, Mr. Davis, in connection with the object of our inquiry—I represent a milling firm that is situated in Enniscorthy, about half a mile outside the town. The river is navigable up to the mill. We have barges taking grain from the farmers and bringing it up. We are very much handicapped owing to the shoals in the river, between Kilmine and Enniscorthy. The boats often stick and have to be lightened. This is, of course, a great obstruction to business. I am speaking of wheat that we import from Liverpool. Of course, since the war began that traffic is all stopped. We get in 9,000 or 10,000 tons of wheat, but we are

Chairman—continued.

very much handicapped by the river being in such a bad condition. Barges carrying between 30 and 40 tons get stranded on the shoals, and, as I have stated, must be lightened. Kilmine to Enniscorthy is about three miles, so the cost of dredging would not be very much. After the war we will be faced with the problem of getting engines from Wexford to Enniscorthy, and if the river were properly dredged the difficulty of navigation would be got over. There are other gentlemen here who are well acquainted with the conditions of the river, and they will be glad to give you some evidence.

Mr A. DOYLE, Urban Councillor, Enniscorthy called in; and Examined.

Chairman.

1129. I understand, Mr. Doyle, you have been trading on the Slaney for a number of years?—Yes, sir, for the last 35 or 40 years. Trading has been handicapped for many years owing to the condition of the river. There are shoals in it which interfere with navigation, and if they were dredged, we could have larger boats on the slaney. The town is greatly handicapped at present owing to the difficulties of transport.

1130. What is the largest boat that is able to come up the river?—A 45-ton boat. That was drawing 5 feet of water.

1131. And at spring tide?—There would be 6 feet of water.

Mr Fidd.

1132. Is there any authority, public or otherwise, who have endeavoured to meet this want of dredging. Is there any proposition to be laid before the Committee as to how it is to be done? Is there any local authority having charge of the river or of the Wexford Harbour Board take into consideration the dredging up to Enniscorthy, or is it left to nature?—Yes, up to nine years ago, when the merchants of Enniscorthy took the matter in hand and got assistance from the Government and dredged about half a mile and made a great improvement in the river. Before that part of the river was dredged a cut drawing only 3 feet 10 inches of water would have to be lightened at spring tides.

Colonel LORTON A. BRYAN, President, Enniscorthy

Chairman.

1120. I understand, Colonel Bryan, you are President of the Enniscorthy Co-operative Society?—Yes, sir. I came here partly to represent the trading people of Enniscorthy and also to represent the farmers. I may mention that we have between 1,400 and 1,500 shareholders in the Co-operative Society, and we are anxious to impress upon your Committee the absolute necessity of developing and improving the transport communications on the Slaney, particularly between Enniscorthy and Wexford. The Slaney has always been used to a certain extent for transport. All the bridges on the Slaney are provided with draw arches, and the Grand Jury or the Council Council, when repairs have taken place, took care to see that no obstacle to the improvement of the river was made.

Mr Fidd.

1131. To the navigation?—Yes.

1129. Enniscorthy, we know, is the centre of very considerable traffic?—Yes. At a meeting held last night it was estimated that at least 150,000 barrels of corn alone are handled there.

Chairman.

1123. Is that for export?—Most of it is for export. Practically the 150,000 barrels means all the corn leaving the area, because the agricultural community grow their own food. The Society I represent is a trading concern. Their trade at the present time comes to between 10,000 tons and 12,000 tons a year—sugars, coal, ironcliffs, merchandise, timber and grain. We have got a saw-mill, which was started recently that is capable of great development. I may say I am also Vice-President of the Wexford Meat

Co-operative Society, called in; and Examined.

Chairman—continued.

Supply and Bacon Factory, Ltd., which has a turnover of £200,000 a year, handling cattle, sheep and pigs throughout the county. At the present time we get a certain amount of stock from Enniscorthy district to Wexford by train. I believe it would be very much better if we could get it by water, and have a proper service of boats on the river. Until the river is properly dredged we cannot have a proper service between Enniscorthy and Wexford. If the river were dredged to a depth of 4 feet it would accommodate boats suitable for service between the two towns. I would, however, prefer to see it dredged to a depth of 7 feet at high-water ordinary tide. This would enable cross-Channel boats to come up the river. Personally, I would prefer this bigger scheme than the smaller one of dredging the river to a depth of 4 feet. There is another matter of the greatest importance to the country—the canalisation of the river between Enniscorthy and Newtownbarry, with a further linking up with the canal system at Carlow. I believe that is a matter well worthy of the consideration of your Committee. Certainly the canalisation of the river from Newtownbarry deserves consideration. At present the only communication with Newtownbarry, which is a very important district, is by road. The first thing we want is to get the river improved to Enniscorthy, and also these canals. Part of this country here is very highly mineralised. Johnson Pasha would, I think, highly interested in the country. The first thing we are able to give you some interesting information in regard to that. This area holds out great possibilities for development. With proper transport facilities this country could be developed not only from an agricultural point of view, but in an industrial sense also, owing to the many classes of minerals that are to be found in it. The county is simply teeming with minerals.

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Colonel BRYAN.

[Continued.]

Chairman—continued.

means possibilities, but before any of these possibilities come to fruition we require a navigable river and a proper means of transport. That is the first requirement.

Mr. Field.

1124. Is not Wexford a great grain-producing county?—Yes. It is a great county for growing barley and oats. The farmers are also in the habit of growing a certain amount of wheat. Wexford, since the war, has developed its corn-growing to a large extent than any other county in Ireland.

Chairman.

1125. Has any estimate been made by anyone as to what it would cost to give 7 feet of water in the river?—I don't think so. We only got word of this sitting yesterday evening so we would have more information to lay before you. We can only give you to-day a rough idea of the trade of the town, but if it would be of any assistance to you we would be prepared to furnish a more detailed report, showing what improvements might be made, and perhaps giving a rough idea of the cost. The cost of dredging the river to Edinmore would be very really self-supporting, because the obstruction is gravel of the very finest quality and would command a good price. About 2,800 cubic yards would be required to be dredged out of the river, according to Mr. O'Brien's estimate, but, as I have said, the fine gravel which you would get out of the bed in the course of dredging is valuable, and would be useful in concrete work. Before the war this gravel was worth from 3s. 6d. to 3s. 6d. a ton. You really want some authority to look after this matter whose first interest is the improvement of the river. The Council Council has so many interests that it is hard to concentrate on a work of this kind. You want an authority established whose sole business would be to take charge of the river.

Mr. Keating.

1126. You complain that there is no direct authority for carrying out the improvements you have in your mind?—No authority whose exclusive duty it is to look after the river. The County Council do, of course, responsible in the same general way that they are responsible for everything in the county, but I don't believe you would ever get satisfactory work done unless you have a special authority whose sole attention will be directed to the improvement of the river.

1127. You attribute all the delay in the carrying out of improvement to the absence of a supreme authority over the river?—That, and want of money.

1128. There is plenty of money in the British Treasury.

Mr. Field? Can you get it—that is another question.

Mr. P. O'NEIL, J.P., M.C.C., Chairman, Enniscorthy Urban Council, called in; and Examined.

Chairman.

1129. You are Chairman of the Enniscorthy Urban Council?—Yes, sir. We are deeply interested in this scheme for improving the Slaney to Enniscorthy. I may say that this is not a new scheme for which we are now asking. Some 40 years ago, we had up to 45 barges conveying goods from Wexford to Enniscorthy, but through one cause or another the number has dwindled down until at present there are practically none. We believe that an improved waterway would be a great advantage to the town. Not alone that, but we feel that we won't be progressive until we have secured proper water transport facilities. The railway company is not at all capable of dealing with the traffic to Enniscorthy. From my own experience I can state that there was considerable congestion at the railway station previous to the war. Of course, at present they are well able to deal with the traffic because we cannot really get general merchandise so easily. Previous to the war, however, we had the greatest difficulty and had to incur heavy expense for want of adequate accommodation at the Enniscorthy Railway Station. So much so that instead of being able to say that Enniscorthy was progressing, it will be the other way unless we get more facilities. After the war we expect that things will be worse than ever unless we get these facilities. I would like to point out that Enniscorthy is the centre of one of the largest corn-growing districts in Ireland. Last night we made

Mr. Keating.

1129. Colonel Bryan, in your judgment, the industries and trade of this county are retarded by the absence of a special authority for the river?—Yes.

Colonel Griffin.

1130. Is not there a railway between Wexford and Enniscorthy?—Yes, but railways, especially in Ireland, and I think everywhere else, are always very much better, and better worked, when they have competition. Railways sometimes when there is nobody to compete with them get disinterested. Firms in this district have found in the past that the existence of water transport resulted in very much better services from the railway company than you would get if you had not a competing service.

Mr. Hanson.

1131. Is there reason to complain of the railway service?—There have been many complaints, but when people have only the railway company to handle traffic they do not like to fall out with them.

1132. Is it that the railway cannot deal with the traffic?—At the present time, they cannot. Some of the other gentlemen present who are more immediately in touch with the trade can speak on that subject. I know there have been complaints with regard to the scarcity of wagons and delays, and in addition there is the question of breaking bulk. If you can get coal up to Enniscorthy without being transhipped the coal is better than it is after being transhipped. There are bad railway siding facilities in Enniscorthy. The people have no railway sidings, except three firms, and no quay siding.

1133. Can you give us any evidence or make any statement to show that the canalisation of the Slaney as far as Newbury would reach on the prosperity of Wexford?—I believe, if we are to develop agriculture, we will require large additional quantities of fertilisers, and we will grow large quantities of produce. If we are to prosper we must have a cheap and easy means of obtaining our supplies, such as artificial manures, and of despatching our produce, such as corn and cattle. Unless we have such facilities we cannot compete in the market or develop ordinary industries.

Mr. Leasing.

1134. Is it really within the powers of the County Council to control the river in any way?—I don't know about the control, but they can do improvements, I think. The County Council did find some money, and they were not surcharged.

Chairman—continued.

a rough estimate of the amount of traffic to and from Enniscorthy in the way of corn, and coals, and manures, and it is very heavy.

1135. You have got the estimates?—Yes, roughly. 40 years ago we had 45 barges on the river, carrying 25 tons. The grain that is handled in Enniscorthy amounted to 150,000 barrels.

Mr. Field.

1137. In the year?—Yes. As I have said, we are in the centre of one of the largest corn-growing districts in Ireland. There is at least 25,000 tons of merchandise also handled. We have no means of transport at the present time except the railway for coal, manures, corn or any other merchandise in which we are dealing. Not alone do we have to hold our own in Enniscorthy, but we expect to improve. Recently we established a branch of the Irish Industrial Development Association, and we expect to start some new industries. The merchants in Enniscorthy have promised to put on motor boats if we got the river so improved that we could bring up any reasonable tonnage. We believe that we will not, however, be able to hold our own unless we get some assistance and get control of the river. I took an active part some years ago in improving the river. The County Council advanced some money for the purpose, and the Department of Agriculture also advanced a certain sum. We dredged about

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Mr. O'NEIL.

[Continued.]

Mr. Field—continued.

about half a mile, which was a great improvement to the river. The material that we got out of the river was very valuable and helped us considerably to meet the expenses. We did the work for the amount allowed. That expenditure considerably improved one part of the river, but we had not money enough to continue the dredging. I do not think that there is anything else that I have to say to the Committee except that it is the anxious desire of the people of Ennisecorthy that something should be done to improve the river navigation and that they are prepared to help in every way. If the river is improved they are prepared to contribute a very considerable sum to establish motor or other services that may be considered desirable in order to develop the town and the surrounding district.

Chairman.

1148. Is there a large trade between Ennisecorthy and Dublin?—Yes, I think I may say that Ennisecorthy is one of the largest goods distributing stations on the Dublin and South Eastern Railway between Ennisecorthy and Dublin.

1149. Is there any direct trading between Ennisecorthy and towns in the Midlands of England?—Yes, before the war. Food stuffs before the war came from England, and, in addition to the corn-growing which I have already mentioned, there are more cattle feeders in the vicinity of Ennisecorthy than in any other part of Ireland. They feed up to 50 or 100 cattle.

Mr. Field.

1150. You must stall-feed cattle?—Yes. They are dependent to a very large extent upon foreign feeding stuff. At one time there were a couple of boats coming to Westford, trading exclusively from Liverpool with feeding stuffs alone, and a large percentage of that cargo invariably came from Ennisecorthy.

Colonel Gretton.

1151. Have you any estimate of the cost of removing the shoals or dredging them to a navigable depth?—I think some years ago we dredged about a mile and a half, and we did that for £600. That was the amount allowed for the purpose. Then we got about £150 for the gravel that we took out of the river.

1152. What would be the cost of doing the remaining work to make the whole course of the river navigable from Ennisecorthy to Westford?—Well, I can only give a guess. There are not many parts of the river to be dredged. I think that if we had twice as much as was allowed us before it would go a long way in doing the work, that is £1,200.

1153. We want something precise. Will the 4 feet dredging serve your purpose, or would it be necessary to have a depth of 7 feet?—Of course, it would be better to have the dredging done to a depth of 7 feet because then you could bring cross-Channel boats up.

1154. Which are the traders anxious to get—a 3-foot or a 4-foot depth?—3 feet, of course, would be better, but even the 4 feet would mean a considerable advantage to Ennisecorthy. The 7 feet would enable you to bring up large boats.

1155. Was anything done by the traders to raise funds to deepen the river?—Yes, some years ago.

Mr. Wm. ARMSTRONG, representing the Wholesale

(Chairman)

1156. I understand, Mr. Armstrong, that you represent the Wholesale Distributing people in Ennisecorthy?—Yes, and the people of Ennisecorthy generally. I would like to say that Westford is one of the most thriving centres in Ireland, and that Ennisecorthy, which is its centre, could not be more suitably situated for the collection and distribution of all provisions and merchandise, so far as the country is concerned. We, in Ennisecorthy, are all agreed that we are seriously handicapped through the want of proper water facilities for transport. There used to be a tremendous amount of trade through Westford, and there is no reason if the river were put into a proper condition why that trade should not come back again, and, in fact, be considerably improved. We want transport facilities from Westford to Ennisecorthy. That is absolutely

Colonel Gretton—continued.

1146. £1,200 is not a very large sum?—The traders, as I have already stated, made an effort some years ago to improve the river.

1147. Why did the traders stop dredging?—There were many reasons. The system of bringing up barges was absolutely obsolete. You could scarcely get that done without motor power. The man who did it heretofore could not be got now, I think, to do it. Besides it would be a slow process. In my opinion, it is necessary to have motor boats. If you could not get the river to a sufficient depth to bring up cross-Channel vessels you could work it effectively by having tug-boats that would bring up the barges.

Mr. Hoynes.

1148. You are a very large trader in Ennisecorthy yourself?—Yes.

1149. What proportion of your trade is carried on the Slaney?—None.

1150. And if you had the accommodation you are now looking for how much would carry on the river?—I would carry 10,000 tons.

1151. What proportion would that be of your total tonnage?—Not half.

1152. Would that apply to the other traders?—No, because there are some of them not in the same line. I am largely in the corn, manure and coal trade.

1153. Do you contemplate a development of navigation on the Slaney without Westford?—No, we want the co-operation of Westford.

1154. The efficiency of the Slaney would depend largely on the efficiency of the port of Westford?—Yes, and, in my opinion, the improvement of both should be taken up together.

1155. Do you think the granting of facilities to the port of Westford would insure the development of navigation on the Slaney?—Yes, they both want improvement. A few years ago we wanted a steam crane erected for the purpose of improving facilities for loading coal and other goods at the railway station and we could not get it. We showed the Railway Engineer where it could be easily erected, but the project fell through. We merely wanted a steam crane to lower the goods out of the boats into the coal wagons.

1156. Is it your view as a business man that if the navigation of the Slaney in conjunction with the Port of Westford were improved it would react on the prosperity of the whole of Westford?—Yes, I am convinced of that.

Mr. Lindsay.

1157. If the State advanced money to some suitable authority to keep the Slaney in proper condition would you suggest that tolls should be paid on the goods in order to make a revenue?—Of course, we would have to pay dues at Westford, but I have no doubt that we would agree in Ennisecorthy to pay tolls.

1158. You think the traders in Ennisecorthy would be willing to pay tolls on their goods coming up the river?—Yes.

Mr. Field.

1159. Is it your opinion that, owing to the condition the river has been allowed to get into that 45 barges have disappeared?—Yes.

1160. Is it on account of the shoals that the barges were prevented from coming up?—Yes, largely to the difficulty of getting goods up.

Distributing Trade in Ennisecorthy, called in; and Examined.

Chairman—continued.

It is necessary to enable us to hold our position and to improve it. I also represent the Ennisecorthy Gas Company. We used to get our coal by lighter, but now we get it by road. This means a difference of 8s. on us extra cartage and extra freight. I have no doubt whatever that the people of Ennisecorthy would undertake to assist any scheme of improvement financially in some way or other if they were called upon to do so in the way of paying dues or tolls on goods conveyed to their town by boat. There are several of the large traders who would put on more boats if we had proper facilities. At the present moment we are handicapped in the work of developing the industries of the district and are seriously interfered with in our distribution to the country districts.

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Mr. ARMSTRONG.

[Continued.]

Chairman.

1152 I would suggest that you would send us a statement showing as the condition of the river, and giving us particulars in reference to the two schemes put before us of deepening the river by 4 feet and 7 feet,

JOSEPH PARRA, representing the Kinnisorty Association for the Development and Improvement of Local Industry, called in; and Examined.

Chairman.

1153 I understand that you represent the Kinnisorty Association for the Development and Improvement of Local Industry?—Yes, sir. I want to speak particularly on behalf of the Association for the general development and improvement of industries. A certain amount of spade work has been done in the county within the last five or six years in that direction in the way of ascertaining the resources of Wexford, and there appears to me no doubt whatever that if there were proper facilities, for water carriage especially, that we should be in a far better position for establishing industries than we are at present. I have got at this moment in my back yard ordinary drain pipes manufactured in Somersetshire, and in my house flower-pots manufactured in Nottingham. That is the state of things that we wish to alter if we can do so without undue interference with the course of trade. I do not see how we can interfere with the work of the railways or prejudice the interests of the shareholders in any way, but if we have cheap water traffic and transport for our bricks we would have a better chance of making headway against the competition of the railway than we have at the present time. Here are two large towns, Kinnisorty and Wexford. In them there is not a chimney-pot, a drain-pipe, or a tile, or any article of any sort that could be made from clay in this county that is not purchased in England. There are, of course, some exceptions, but, speaking roughly and generally, all our earthenware goods are imported.

1154 Do you claim that if there were better transport facilities that your trade would improve?—Yes, that we should have a chance of establishing industries. I do not think I need go further.

Mr. Fidd.

1155 Have you the clay in this county suitable for the manufacture of the articles you have mentioned?—Yes. Here is a little tile. It is the worst of a lot that I made from Kinnisorty clay. No one could find me a better piece of drain-pipe body produced in the English counties; if so I would be very pleased. The same applies to a large variety of other things. The difficulty in this country is that everything is undersold through the system of through rate which prevents us from competing. There are quarries at Carrigroe which will produce not only bottle glass but plate glass of the finest description. I may say that there is no need to the possibilities of the locality in the development of a pottery industry. One man who was interested in developing a pottery in the neighbourhood of Kinnisorty was undermined in his trade in Dublin by an English traveller and his trade went down.

Mr. Fidd.

1156 Was that on account of the transport facilities?—That was in consequence of the high railway rates. Colonel Loftus Ryan? All these industries need coal. The question of the cost of coal is the dominating consideration.

Mr. JOSEPH RYAN, Manager, Kinnisorty Co-operative Stores, called in; and Examined.

Chairman.

1157 You are manager of the Kinnisorty Co-operative Stores, Mr. Ryan?—Yes, Sir. In dealing really with the question of transport, I would like to point out that it is absolutely imperative in regard to all industries, and particularly in regard to agriculture, that we must have water transport. Every man in this room knows the inefficiency of the Dublin and South Eastern Railway. I never heard of any man who speaks of its efficiency. Our Railway Company, even prior to the war, told us that they could not give us facilities for our traffic. They said they had not the money. Since the war, they tell us that the war has prevented them. In my poor opinion I say

Chairman—continued.

and also particulars as to the amount of trade?—Yes, we will do that. We will come together and get the particulars you require.

Colonel Griffin.

1157 (To Witness.) Your complaint is that the facilities for importing things from other countries are exceedingly good?—No. I would not say that. In a case of that sort the local industries have no chance if they have not transport facilities for short distances.

1158 Are we to understand that your suggestions are for facilities for internal transport?—Yes.

Mr. Hennessey.

1159 We are not concerned here with the general industry and development of Ireland apart from transport?—Yes, but the development of industries depends on facilities for internal transport.

1159 And the immediate question is the development of the transport on the Slaney?—Yes.

1157 Can you give us any facts to show that the development facilities on the Slaney would react on the prosperity of the whole locality?—Yes, so far as my own efforts to create industry are concerned. The difficulty in every case is the difficulty of transport.

1157 What sort of facts can you give us that would demonstrate to hard-headed Saxons in the House of Commons that it is a good thing to spend money on the improvement of the Slaney?—I am confining myself to minerals, but there are other things I might also mention which depend on cheap coal and transport. To confine ourselves to minerals you need not go further than the Geological Survey, which draws attention to the number of earthy minerals in the County of Wexford which should be developed. These suggestions were made nearly fifty years ago, and I do not think the matter has been touched since; and under these circumstances one can hardly say that the development of transport would not increase the prosperity of the country. I have recently received letters from a man who suggested that he would come over here and start a certain industry. Whether his firm will come over here and start the industry would depend largely on the facilities of transport.

Mr. Fidd.

1155 Is it your opinion that if the Slaney waterway transport was improved and developed that it would enable these clays and other industries of which you speak to be developed in a way that is not possible under present transport conditions?—Yes.

1154 And that if the Harbour of Wexford and the waterway were improved so as to provide cheap transport that a benefit would be conferred not alone on Wexford, but on the whole country?—Yes, that is my opinion.

1155 You are also of opinion that the through rates have injuriously affected local industry?—Yes.

Mr. Keating.

1156 If the Slaney were made navigable and the port improved you would have cheaper coal and raw material to develop your industry?—Yes.

Chairman—continued.

that it would be to the interest of the public and of our whole Empire if the money sunk in the Dublin and South Eastern Railway were expended on improving water transport. Every year we are held up in our grain business. The Railway Company have not waggons, or loading or unloading facilities, and it is simply a case of wait. That is the experience of all the merchants of Kinnisorty. In our business in Kinnisorty when we got in vessels to Wexford I personally on behalf of my Society have had to get the vessels unloaded, and have had to pay for leaving goods on the quay which could not be handled, as the Railway Company could not take them. Our Rail-

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Mr. RYAN.

[Continued.]

Chairman—continued.

way Company cannot take our merchandise, and therefore it is absolutely necessary that the River Slaney should be made navigable. Our Society, which is a very progressive organisation, wants to do cross-channel work and to get our stuff direct across the water. It is particularly on that question of traffic that I want to speak. If the river were deepened to 7 ft. we could use vessels equal to the East Coast barges. We must have direct cross-channel communication, and for that purpose it is necessary that we should have a depth of 7 ft. in the river. If, however, it is found impossible to find money to dredge the river to that depth then it would be necessary for us to get our stuff through Wexford and transport it.

1176 There are no estimates made as to the cost of the necessary improvement?—No, Sir. All our people at Enniscorthy have been keen on the matter, but we did not know your Committee was coming here to-day until 6 o'clock last night.

1179 The local people have not got any estimate as to what it would cost them to get a 7 ft. channel?—Not to my knowledge.

Mr. Field.

1180 If you were in earnest about it, don't you think they would have taken some steps in that direction?—I agree that we have perhaps been somewhat remiss in that respect.

Mr. Keating.

1181 Will you send in a statement as to the improvements necessary, and get an estimate from an engineer as to the cost?—Yes.

Mr. Field.

1182 If the people of Enniscorthy want these improvements so badly they ought to help us by giving evidence!—What length of time shall we have to send in the evidence?

Mr. J. J. STAFFORD, M.C.C., Chairman, Wexford Harbour Board, called in; and Examined.

Chairman.

1191. I understand, Mr. Stafford, you are Chairman of the Harbour Board?—Yes, unfortunately. You have had some very useful information from the gentleman representing Enniscorthy dealing with the port facilities they have at present in regard to the river, Enniscorthy, as you are doubtless aware, is one of the best inland towns in the South of Ireland and the Port of Wexford was and should be the natural source of supplies. Before the railway connection between Enniscorthy and Wexford, all the merchandise went by water into Enniscorthy and would, in my opinion, have continued to do so if the Port of Wexford had been maintained as it should have been. I remember the port intimately for forty years. I remember in March, 1877—forty-one years ago—I was in business here and the depth of water at the bar was between 7 and 8 ft. I remember when I was engaged in the Wexford Dockyard that a vessel which had been rebuilt at the time had to be cut down to make a lighter to enable vessels held up outside the bar to go into the port.

1198. When was that?—In '77 I was in business here at the time, I think that is forty-one years ago. The bar remained in a bad state for a number of years, vessels drawing 7 or 8 ft. of water being only able to enter the port. We come on to the year 1905. I remember going on a deputation to the House of Commons with five or six members of the Harbour Board and waiting on Mr. Hayes Fisher to see if we could get some financial assistance to open up the Port of Wexford, which was in a bad way, but we might as well have been asking the man in the moon for help, for we got nothing. The members of the Harbour Board then put their shoulders together and went to the National Bank and induced them to advance a sum of £15,000 or £17,000 on the security of the dues of the port. That sum, I regret to say, is still due to the bank and we are unable to pay it. We then entered into negotiation with a firm in the North of England and had a section dredger built. We dredged the bar for about six months and, assisted by nature, the bar to-day is better than it

Chairman.

1193. The sooner you send it to us within the next few weeks the better!—We shall do so.

Mr. Field.

1194. Is it your contention, Mr. Ryan, that the Dublin and South Eastern Railway, as it exists at present, is utterly unable to cope with the agricultural and industrial development of Enniscorthy?—That is so. In my opinion the Dublin and South Eastern Railway, even if nationalised, would cost a great deal more to make it efficient than it would to make our river navigable.

1195. You want the river as well as the railway?—Yes.

1196. What is the traffic that you want to get down to Wexford?—We are interested in the timber business. We are running an industry in leather goods and we intend to open additional industries.

1197. Do you send away many cattle?—Yes, we send away a very considerable number of cattle.

1198. Would water transport help for that?—Yes, undoubtedly. Even for cattle alone we would want water transport because it is superior to rail for the transport of cattle.

Colonel Griffin.

1199. You want it for the cattle as well as for the grain?—Yes. Our factory is doing from 200 to 300 head of cattle a week.

1190. Do you say the railway facilities for cattle are insufficient?—Yes. A lot of our people walk their cattle sooner than send them by train.

[This concluded the evidence in reference to the improvement of the River Slaney, and witnesses were next examined in connection with the scheme to improve the port of Wexford.]

Chairman—continued.

has been in the memory of the oldest man in this room. We got a depth of something like 17 or 18 ft. of water in the bar at high water. Unfortunately, we had a wheel in the harbour called "Gulbar," where there is something like 5 or 6 ft. of water lost, and we were soon in the position that though we had plenty of water on the bar we had not enough water in the harbour. The Harbour Commissioners, owing to their financial position at the time, and seeing that they had no further need for the dredger, sold her in order to reduce the debt to the National Bank. We also had a bucket dredger which became obsolete for want of money to work her, and that also has been sold. We have a bar with 18 ft. of water. We have a shoal in the harbour with 5 or 6 ft. of water less, and before you deal with the navigable part of the river Slaney to Enniscorthy I think it would be well to open up the port first because, after all, the Wexford Port is the source of supply. It must be understood that I am not opposing the men who have made such a good case for the dredging of the Slaney, but if Wexford Harbour is the proper approach you must first improve it. At the present moment you cannot bring a vessel of more than about 330 tons into the harbour, and on a high tide she runs the chance of being grounded for a day or two. The finances of the Board are in a very unfortunate position compared with pre-war times. The revenue from all sources before the war was about £4,000, and last year it was down to £2,500. The reasons for the financial decline of the Board are many, but I will detail a few. About seven or eight years ago there was a vessel called the "Menapia" trading from Bristol to Wexford, and she was discontinued because the export of livestock fell off at the time. That reason, however, did not apply to another boat which was taken off about three years ago. That vessel, which had been specially built by Messrs. John Bacon and Co. to suit their Wexford trade, was the only boat trading regularly out of Wexford with England at the time, and it was taken off when the line was taken over by Messrs. Powell and Hough. The latter firm disposed

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MR. STAFFORD.

[Continued.]

Chairman—continued.

of the boat, and the Committee will understand the reason when I state that one of the clauses of the agreement entered into was that the steam barge which the firm had trading between Wexford and Enniscorthy should also be disposed of. If the Wexford Port were developed to allow larger tonnage to come in, it would be the source of supply for Enniscorthy, Gorey, Ferns, and other towns. Last year we were in the unfortunate position that the one boat that was trading with the port was taken off by the Government.

1193. Before deepening the bar, where did your vessels get in?—In the South Bay, outside the bar. We would be very glad if we could get any assistance at all to deepen the port. We always held that it would be a great advantage at least to have the tonnage enter the port, as once vessels got into the harbour they are safe. Now there is that shoal there, the Galbar.

1194. Is that shoal getting worse?—Yes, there is a good deal of silting.

1195. Where exactly is it?—It is about half-way between here and the bar.

1196. Does it absolutely prevent the vessels from coming up?—Yes, to the quays.

1197. You have had a dredger which gave you 18 ft. of water, and inside that you have a double trench, and the result is that although you have a fairly deep bar you have a shoal inside that prevents a vessel coming in?—Yes, that is so.

1198. That is a very extraordinary position. Could not an entrance be opened in the shoal?—It is a mile and a quarter long.

Mr. Field.

1199. You have no funds at your disposal?—No. The Harbour Board are not in a position to improve the port. In fact, we were in such an awful position that at one time we had our tag lying idle at the quays for want of money to buy coal until a local merchant came to the rescue, and some of the Commissioners had to put their names to a bill in the Bank for £150 to enable the tag to be worked and to pay the men. I may say that we economised in every possible way. We have no watchman night or day and we did everything possible to keep down expenses.

Chairman.

1200. What was the reason you did not dredge the Galbar with your suction dredger?—For the reason that the bar was sand, but Galbar is mud. She was not suitable for that. Before the bar was dredged even small schooners had to be lightened in the bay. Small vessels even of a 100 tons had to be lightened in the South Bay. At the time we approached the Government there were fourteen vessels held up on the bar, and it was an unfortunate position for men to be in as to applying to a Government that would not do anything for them. We would be glad to get assistance to open the port, as we have no money ourselves to do anything.

Mr. Field.

1201. It is an extraordinary thing to say that when you have dredged your bar you have a shoal in your harbour?—Well, that is our position.

1202. Could not an entrance be made through the shoal to let vessels in?—We could do a lot of things if we had the money.

1203. That is true.—It is a desperate thing that the members of the Board had to back a bill to pay their men, and that they had to depend on the kindness of coal merchants to run their tug. That is the position. As I have stated, we have economised in every way we could, and we dispensed with our watchmen and pilots. Of course, it was easy to dispense with the pilots when they had nothing to earn.

Chairman.

1204. Did you prepare any estimate as to the cost of improvement?—No, there was no use in going into estimates when we had not the wherewithal. I may say, at present large vessels are lying in the bay awaiting convey, but if the port were opened these vessels would find safe anchorage inside.

Mr. Keating.

1205. Have you any prospect of getting back the shipping trade which has disappeared from the port

Mr. Keating—continued.

if this work you advocate is carried out?—Well, there has been a revival of shipping within the last six months. As regards the coast trading to Liverpool, I do not think that boat is to be found, as you want a special boat for the cattle trade. If you ask me would the development of the harbour mean increased shipping here, I say "Yes."

1206. The only object I have in view in asking you that question is to get a clear conception in my own mind so that I can make clear to others the case you have made against the authorities, whoever they may be, who have neglected the prosperity and interests of the town according to what you say. You state that the Wexford Harbour Board is now practically bankrupt?—We are just carrying on.

1207. You owe the National Bank £15,000?—Yes, and no possibility of paying it back. When we raised the money we hoped to be able to do so. We find that we are not only not able to pay back the loan, which in my opinion we are honorably bound to do, but we are not in a position to pay even the interest on the loan.

1208. And you have not enough money to pay the men?—Things are better for the last three or four months, because we have increased the rates, which may be detrimental to the port. We have raised the dues on coal and timber beyond the legal maxima, and though that may benefit us financially it may react on the community. We have made every effort to get out of our difficulty.

1209. What is the Government authority which deals with ports and harbours?—The Board of Trade.

1210. Is there any other authority?—My experience, as a member of the Harbour Board for twenty years, is that they do their own work.

1211. But the Board of Trade is the Government authority over the port?—Yes.

1212. And they exercise no authority?—I have never seen it. They never exercise much jurisdiction over our Board.

1213. You think we ought to recommend that a grant be given for the improvement of the port?—Yes.

1214. If we recommended to our main Committee to ask Parliament for a grant, you must be prepared to state what plan you have in mind for the future development of the port, and put in a proper statement to use?—I will give it to you now.

Chairman.

1215. Perhaps you would send in the statement?—Yes.

Colonel Giffard.

1216. What source of revenue have you from the port?—The only source of revenue is what we levy on imports and exports.

1217. Tolls and dues?—Yes, and we are acting illegally in what we are levying to-day, and it may be disputed.

1218. Are your tolls and dues higher than in the neighbouring ports?—In some ports there are no dues. In the city of Waterford there are no dues. We have raised our tonnage rates from 6d. to 1s. 6d. and again to 3s. We raised our dues on coal to 6d. per ton, whereas the limit allowed by the Board of Trade is 1d., but what could we do? We had to do that or close down the port, as there was no one to assist us.

1219. You have been obliged to exceed the tolls which are laid down in your own by-laws in order to keep the port open?—Yes.

1220. And the by-laws have been sanctioned by the Board of Trade?—We asked no permission in regard to the dues.

1221. What class of vessels come in?—Mostly small schooners and small steamers. Up to about six months ago, owing to the very great difficulty in securing tonnage, and owing to the poor facilities for discharging vessels at Wexford, and owing to the fact that it was a tidal harbour, it was impossible to get tonnage here. For the last six months, however, tonnage has become more plentiful. The facilities we have for loading and discharging vessels are very primitive.

1222. Is it necessary to lighten many of the vessels before they get to the quays?—Not at present, because they have not brought large tonnage. They only bring tonnage to rest the water.

1223. What

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Mr. STAFFORD.

[Continued.]

Colonel Giffen—continued.

1232A. What are the facilities of the quay for discharging?—None.

1233. You want steam cranes and so forth?—Yes. We have no cranes for handling coal. The yards are peculiarly situated.

1234. As regards the traffic of the port, according to the return here, the traffic of the port kept up fairly well until about 1911?—Yes.

1235. After that year it began to decrease?—Yes. There were labour troubles in 1912 which I have good reason to remember, and since then the trade of the port has continued to decline.

1236. You have been hard hit by the war, I see by these figures?—Yes.

1237. The trade of the port has decreased rapidly?—Yes. In 1916, when the cross-channel service was withdrawn, we had 26,000 tons of shipping, and on the 31st March last we had only 9,780 tons, including sailing vessels and steamers, 3,600 of steam tonnage and 6,180 of sail tonnage.

Mr. Field.

1238. Less than half?—Yes.

1239. There was a regular service of steamers between here and Bristol, and another service to Liverpool?—Yes.

1240. Both of these are gone?—Yes.

Colonel Giffen.

1241. Have you reason to believe that the service could be resumed if the port were open?—Yes.

Chairman.

1242. Who was running it?—A Liverpool firm. The steamer was requisitioned by the Government.

Colonel Giffen.

1243. Your greatest difficulty at the present moment is the coal inside the bay?—Yes. We require funds and a suitable dredge to get over that. In my opinion, if the port had been maintained for the last forty years and open to larger tonnage, the Slaney would not be in the state it is to-day between Wexford and Kinscorthy, because the closing of the port helped to kill the traffic on the river.

Mr. Hanson.

1244. Why do you think that the maintenance of your harbour is entirely a matter for the State?—The only way I can answer that is by asking you another question. "Who else is to do it?"

Alfred W. H. McGeehan, Mayor of Wexford, called in; and Examined.

Chairman.

1245. Would you like to give us some evidence?—I do not know that I can add much to what Mr. Stafford has said. The Harbour Board is in a bankrupt condition at present, and the harbour requires expenditure on it in the way of dredging, cutting, dredging the berths, maintaining the quays, etc. I think it is the first consideration in connection with any scheme for the development of the harbour to have these things made right.

1246. Has any application been made to the Board of Trade and in regard to the financial difficulties of the Harbour Board?—I do not think so. I am not a member of the Harbour Board, except ex officio as Mayor.

Mr. Stafford. We thought that when we did not succeed in getting money from the Government in previous times there was little chance of succeeding now.

Chairman. When you were unable to pay the money to the bank was any representation made to the Board of Trade?

Mr. Stafford. No, Sir.

Mr. Field. Well, you know, "a dumb priest never get a parish." You should have asked again.

The Witness. It is to the welfare of Wexford and Kinscorthy, both of which towns are largely dependent on the maintenance of the harbour in a proper condition, to have the port developed and maintained in a proper condition, and if any funds were available, or could be made available, the present is a good opportunity of having the improvements carried out. At the present time there is a dredger here belonging to the Admiralty at work in the harbour, and it should be availed of.

Mr. Hanson—continued.

1247. Suppose that question were put in the case of every harbour in the United Kingdom. How can anybody justify a definite claim on the part of Wexford that that harbour, taken apart from other harbours, should be maintained by the State? That is what you state in your evidence?—Yes.

1248. There must be something to support an opinion of that kind?—This harbour has natural facilities at the mouth of St. George's Channel, and the maintenance of such a harbour should be State-aided if the revenue to be derived from it is not sufficient.

1249. On what grounds?—It is a matter of open air.

1250. What peculiar advantage does the State derive from the harbour of Wexford?—Well, to answer that question I would have to introduce some matters which the Committee might not like, and I content myself by saying that it is my opinion that the port should be State-aided. I might leave it there. That is my opinion. Take the position of the Board to-day. There are twelve or thirteen members on it. We are allowed to levy certain rates, and we have exceeded our legal powers in levying them.

Chairman.

1251. Did you apply to the Board of Trade?—No. This is an extraordinary position for twelve men to be in.

Mr. Hanson.

1252. I quite agree. When you propose that State assistance should be given, do you suggest that it should clear off this debt of £25,000 to the National Bank?—I have not said so.

1253. Did you mean that?—It is a great hardship on the National Bank, who advanced the money in perfectly good faith, and which we expended judiciously, if it were not paid back, and I think it ought to be paid back. We are not able to do so, and somebody ought to do it.

1254. Has the administration of the Port in any way contributed to its downfall?—I should not say so.

Mr. Lindsey.

1255. How far out does your jurisdiction extend?—About a mile out.

Mr. Field.

1256. Did the opening of Rosslare Harbour affect your port in any way?—I should say it did.

Chairman.

1257. It is not working?—It is working at the air stations. That is an opportunity that might be availed of. It would save a lot of expense to use her while she is here. I understand the secretary of the Harbour Board will give a statement regarding the financial position of the Board. I think it is not the suggestion of the Harbour Board that the harbour should be maintained by the State. All they claim is to be taken out of their present financial difficulty which has been brought on by a series of unforeseen and unprecedented circumstances. I think it is the duty of the State, under those circumstances, to put the Harbour Board in such a position that they can be able to carry on. Regarding the facilities for discharging vessels at the port, I agree that they are rather primitive, and I think it would be advisable to have one or two steam cranes working on the quays. I also agree with the gentleman from Kinscorthy, that it would be well to have the transport facilities on the river developed. Of course, for this purpose, the deepening of the river is necessary. Suitable motor-boats would be required, and wharves should be erected at available points.

Mr. Hanson.

1258. Along the river banks?—Yes. There are one or two at present. That is all I desire to say.

Chairman.

1259. Does that shal Galley interfere with steamers coming here?—Yes. It is sometimes the cause of delay to steamers.

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1259 Had

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ALDERMAN McGUIRE.

[Continued]

Chairman—continued.

1252. Had any steamers to be taken off on that account?—It told against the Harbour. It was a constant source of complaint.

1253. Do you consider that the increase of the dues has helped to curtail trade?—I believe so, but the secretary of the Harbour Board will be able to give you the amount of the increase in the dues, which are simply enormous—from 6d. to 3s., and so on.

1254. They were put up to meet running expenses—was that the idea?—The rates were increased not with the idea of making good the loss, but simply to maintain the port.

Mr. Field.

1255. You could not go on without increasing them?—No.

Mr. Stafford.

1256. We are not even able to pay the National Bank the interest on the overdraft for the last five or six years.

Chairman.

1257. (To the Mayor). Were the cross-channel services paying the steamship owners?—The Liverpool route, I understand, was paying. The steamship routes out of Wexford were paying.

Colonel Giffes.

1258. Has any application been made by the Harbour Commissioners to the city of Wexford for assistance against the present financial straits?—Representations have been made to the Corporation to take over the maintenance of the quays and the streets leading thereto, which the Harbour Commissioners are bound by Act of Parliament to maintain.

1259. Did the corporation meet the commissioners?—They have not consented so far, except to light the quays.

1259a. They have lighted the quays?—Yes.

1260. Is there any reason why the Corporation should not give some assistance temporarily?—That is a question for argument. The members of the Corporation do not see why they should take on the liability. There is another question which crops up, and that is, if it was maintained by the Corporation they would expect perhaps to have the collection of rates and dues.

1261. There is no co-operation so far between the two bodies?—No.

Mr. Hanson.

1262. You have really answered the question that I put to the previous witness when I asked him why the

Captain L. BUSHY, Harbour Master, Wexford, called in, and Examined:

Chairman.

1262a. You have known the port of Wexford for a great many years?—Since '70.

1263. What is the present position of the port as compared with that time?—Very bad. In '70 you could come in over the bar with a sailing vessel drawing 11½ ft. of water at neap tide and beat against a head wind to the quays, but at the present time, with a 500 horse-power tug a vessel drawing 10½ ft. of water could hardly get to the quays. Since I have been in charge of the tug, Culbar has shoaled at least three times.

1271. Has any effort been made to dredge it?—Yes, we were three or four years, on and off, dredging it. We dredged a channel 60 ft. wide through it, but from vessels grounding on it, it filled up again. At present, in an ordinary spring tide, we have 18 ft. of water at the bar, but owing to the shoal you would have a difficulty in getting a vessel drawing 12 ft. up to the quays, except by good management, and at the quays she would find only one or two fathoms though the depth was 18 ft. About ten or twelve years ago, the board applied to the Board of Works for a dredger, and they sent down their engineer, who said that the dredger would not suit—that she was not fitted to dredge sand and gravel. We could not get her to dredge the pier, but she came down here afterwards for material to reclaim ground for a local concern.

Mr. Field.

1272. What did Wexford do to the Board of Works?—I don't know, Sir, what we ever done on any

Mr. Hanson—continued.

State should maintain the harbour of Wexford because you replied that there were unforeseen and unprecedented difficulties, and that in consequence, there was a claim on the State. That is a definite answer to the question I asked the previous witness?—Yes.

Mr. Keating.

1255. The suggestion you made about utilizing the dredger which the Admiralty has at present in the harbour is one which the Committee will bear in mind as a very useful suggestion, because you tell us it would enable you to accomplish the object in view at a small cost?—Yes, at a much smaller cost than otherwise.

1294. Another good point, in my opinion, is that if the harbour were improved and the shoal removed those vessels lying outside the harbour at night could come in and would be better protected in the harbour?—Yes.

1295. Would it be necessary to clear the shoal a mile and a quarter long in order to get in the ships?—The ships could come inside the harbour for shelter without coming up to the quays.

Mr. Field.

1266. Is the corporation directly represented on the Harbour Board?—Yes, by one member; and the Mayor, who is an ex officio member.

1267. Have these two members been able to impress the corporation with the necessity of assisting the Harbour Board in the interest of Wexford and the country generally?—The Corporation have agreed to light the quays.

1268. Has any application been made to the Department of Agriculture for their dredger or to the Admiralty for their dredger?

Mr. F. J. Hynes (Secretary of the Harbour Board). I will answer that. The Harbour Commissioners, acting in conjunction with the County Council, the corporation, the Kinscourt Urban and District Councils, and, in fact, all the public bodies in the county, some eighteen months ago, submitted a memorial on the matter to Mr. Burgess, in the Department of Agriculture, and to Members of Parliament, but it is of no availance.

Mr. Field.

1269. Why do you not keep hammering at the matter?

Mr. Stafford. We would want a fighting member over there.

Wexford, called in, and Examined:

Mr. Field—continued.

one. When I first went into the tug, we had 51 or 52 sailing vessels in the port, but now we have only 12. At that time the vessels ranged down from 600 tons to 60 tons.

Mr. Stafford. A fair percentage of them were lost entering the port.

Witness. I never lost one.

Mr. Stafford.

1273. But you know what I said is a fact?—Yes.

Chairman.

1274. Do you think, Captain Bushy, that if a 200-ft channel were dredged through "Snailbar" it would be all right?—It would hold for some time, and the trade would increase to such an extent that you would have dues enough out of that increased traffic to maintain a dredger there every two or three years as would be required. I remember when the Bacon people sold their steamer to Powell and Hough, they put in a clause as regard to Kinscourt. They had a little steamer running between Wexford and Kinscourt, and when they sold their boats they also put that little steamer up for auction, and there was a clause that she could not run in opposition to the railway. The Dublin and South Eastern did not want anything in opposition to them along the river. You will be up against them now, I suppose.

1275. We are only making inquiries?—I know. The question has been asked why did the Bacon people sell their

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Captain BUSH.

[Continued]

Chairman—continued.

their boats? I cannot understand the reason, though I have thought over the matter a good deal, and it interested me a lot. Everybody is aware that they were the greatest carriers to Great Britain. They were carrying stuff from the North of England right down to the East of England—to London, Portsmouth, Plymouth, up to Bristol, Liverpool, Glasgow, and other places.

1276 I understand they continued until they were stopped by the war?—They stopped before the war. They stopped their big boats. Before the war they had boats of 300 or 400 tons trading between here and Liverpool. When the war started this boat was commandeered by the Government, and they promised to give us one instead, but they never did so.

1277 Did the company get fairly good-sized cargoes?—I remember when they had to run two boats a week, and that was principally their Ennisceothly trade. There was an enormous amount of cargo went into the boats.

Mr. Field.

1278 What cure or what remedy do you propose for the present state of things?—The dredging of "Galbar." Everything else that we have to do with depends on that.

1279 Following that would be the development of the waterway up to Ennisceothly?—Yes.

1280 Did I understand you to say that Ennisceothly was one of the chief feeders of Wexford Harbour?—Yes.

Mr. P. HOGAN, Secretary, Wexford Harbour Board, called in; and Examined.

Chairman.

1281 You have a financial statement to make in connection with the Harbour Board?—Yes, sir. At the end of the financial year to the 31st March last the board owed the National Bank £17,235 18s. 5d., and that is increasing by £380 odd for interest each year. The tonnage has dropped from 55,342 tons in 1911 to 39,293 in the present year. The tonnage in the intervening years has been—1912, 54,434 tons; 1913, 44,976 tons; 1914, 41,696 tons; 1915, 38,733 tons; 1916, 26,685 tons; 1917, 15,408 tons.

Mr. HANSON.

1282 Will you put in the balance-sheets?—Yes.

1282a. Will you let us have them from 1911?—Yes.

[This closed the evidence offered at the sitting.]

Chairman.] Gentlemen, we are very much obliged to you for the information you have given us. You have given us a good deal of information in reference to the position of the port, and I gather what you want is some grant to dredge a channel through "Galbar."

Mr. Stafford.] We are also anxious to have the berths dredged.

Chairman.] I understand there are only two large berths here. I would like to know if more accommodation could be obtained.

Mr. Stafford.] We have sufficient accommodation if the berths were dredged.

Mr. LINDSEY.

1283. What was the name of the boat that was commandeered?—"Wexford Coast" was the boat that was commandeered.

1282. When was it taken over by the Government?—19th August, 1915.

1285. Do you remember when there was an export service between Wexford and Derry?—Yes.

1286. What size boats ran?—About 150 or 160 tons.

1285. Has the falling-off in the port been gradual?—Yes.

1286. It has not just come within the last year or two?—No. Outside the bar was improved, but inside the shoals got worse. "Galbar" has been gradually shoaling since 1870. The reservoir town sewage also runs into the harbour, and that causes silting.

Mr. LINDSEY.

1287. When the Powell, Bacon and Rough firm disposed of the Wexford boat, didn't they substitute a boat for her?—They did, but that boat was commandeered. When representations were made to the Admiralty, they promised to restore her to the service, but did not do so.

Mr. HANSON.

1288. Did the strike that took place some time ago affect the harbour?—It did.

1289. Did it not result in the removal of certain shipowners from this port to another port?—No.

1290. Did not some people who carried on shipping in this port go to Rosslare?—Not to my knowledge.

Chairman.] For what amount of tonnage?

Mr. Stafford.] For all the tonnage coming to the port. I now beg to propose a vote of thanks to the Chairman and Members of the Committee for the patient hearing they have given the representatives of the different bodies who have come before them. We hope that the information we have given you will be a source of some benefit to the port. From the information you have gathered both from the Ennisceothly gentlemen and the members of the Harbour Board, you will see that the position is very serious as regards the harbour, and that any assistance you can recommend will be very much appreciated by the members of the Harbour Board, whose task is not a pleasant one.

Colonel Loftus Ryan.] I cordially second the vote of thanks due to you for the great patience you have shown in the course of this inquiry.

The Mayor.] I also desire, on behalf of the Corporation and the people of Wexford, to associate myself with the vote of thanks, and hope that the result of your investigation to-day will be to the benefit of the town.

Chairman.] We desire to thank you for the very kind things you have said and for the information you have given us, and to say that we came to make inquiries, and that we have got a good deal of valuable information which we shall submit to our main Committee.

(The Sitting then concluded.)

FIFTH PUBLIC SITTING: THURSDAY, 12TH SEPTEMBER, 1918,

At ROYAL HOTEL, NEW ROSS, at 6.15 p.m.

MEMBERS PRESENT:

Colonel Gretton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. P. J. Hannigan.
Mr. PHILIP MacNULTY, Secretary.

By ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

Chairman

On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the inland facilities for transport within the United Kingdom; to secure effective supervision and co-ordination; and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members,

Chairman—continued

to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have come here for the purpose of getting any information the people of New Ross may be able to give us in connection with the improvement of transport facilities. We shall be glad to hear any evidence.

Mr. JOHN S. HARRIS, J.P., M.C.C., New Ross, called in; and Examined

Chairman

1293. You desire to give us some evidence, Mr. Harris, with regard to transport facilities in New Ross?—Yes, Sir. I have to do with the railway communication as well as with the canals. We are right enough so far as the railways are concerned, but some of the train services are not very satisfactory. The Great Southern and Western Railway Company's trains come in within five miles of New Ross, and the Dublin and South Eastern joins it. They manage to start one train before the other train comes in. That is not for the public interest.

Mr. Lindsay

1294. The Great Southern and Western comes through Palace East?—Yes, Sir. The railways do not run for the convenience of the public so far as New Ross is concerned.

Mr. Hannigan

1295. Have you made any complaint?—Yes.

1295a. I think the matter was before the Railway and Canals Commission when they sat in Ireland?—I should not be surprised.

Mr. Lindsay

1296. Have you made any complaint?—There is no use complaining during the war. There are only a few train services now. We have only, as a matter of fact, one train here in the day—one train up and another down. At present it is impossible to go from

Mr. Lindsay—continued

New Ross to Dublin and return on the same day. One could return by the train arriving at Marazion at 2.50 p.m. for Waterford, but there is no connection to New Ross. As I stated, a person travelling from New Ross to Dublin could not return by train until the next morning. The train connections at Palace East between the Dublin and South Eastern and the Great Southern are also unsatisfactory, as one train leaves before the other arrives.

Mr. Field

1297. How do the trains serve for goods traffic?—The rail service for goods is all right either from Waterford or by lighter from Waterford or by train, and from Dublin, also, the train service is all right for goods.

Chairman

1298. How long does the lighter take to come up?—About three hours. The service for goods on the canal is so slow that we never use it. There was a period when we used to get all the heavy goods on it at a cheaper rate, but it took such a long time that we gave up using it.

Mr. Keating

1299. Would it be advantage to you if there were motor barges on the canal?—There are some.

1300. Would the decommissioning of the system generally be a benefit?—It is really the condition of the bed of the river in parts that presents difficulty in the way of navigation.

Mr. P. N. O'GORMAN, J.P., Chairman, New

Chairman

1301. I understand that you are Chairman of the New Ross Urban Council?—Yes, Sir.

1302. And you have some evidence to give us?—I get goods from Dublin by the canal, but the service is so irregular that we never know when we would get our goods. If the Grand Canal Company could arrange to give us a regular service they would not a good deal of our traffic, but at present the service are very irregular. That is the grievance we have against the Grand Canal Company. The canal is not a uniform depth from Dublin down. The boats have to be lightened by 10 or 15 or 20 tons on portions of the river at Bagnalstown and Carlow.

Ross Urban Council, called in; and Examined

Mr. Field

1303. Is there any arrangements between the canal and railway whereby they pool rates, with the result that the canal gets less of the traffic?

Mr. Hannigan: We know there is an agreement.

Mr. M. J. Murphy, J.P., Galganshinnagh: At the time that that agreement came into force a lot of the coal that came from Dublin to Carlow used to come by water. For the last five or six years there is no coal carried at all by the Grand Canal Company. It is the hucksters that have to carry coal. This big coal traffic in days gone by came from Dublin.

Mr. Field

1304. By rail or canal?—Most of it by rail.

1305. Yes

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Mr. THOMPSON.

[Continued.]

Mr. E. G. THOMPSON, Carlow, representing the Irish Canal Boat Owners' Association, called on; and
 He Examined.

Chairman.

1305. You have already given evidence before us in Dublin?—Yes, Sir. I would like to state in connection with the transit of coal from Dublin that the Carlow Gas Company have their stations alongside the canal, but their coal comes by train. Last week they got coal by rail, and it had to be carted a mile and a half from the railway station to the Gas Company's stores. There were some of these trucks lying at the station for a week because the Gas Company could not get cartage facilities for shifting the coal. If the coal had come by canal it would have been a great saving to the railway traffic, to the handling, carting and everything else. That is an instance that has happened within the last fortnight.

1306. We have been told that barges when they come down from Dublin and reach the Barrow have often to be lightened by 10 or 12 tons?—That is so.

1307. What is the difference in the depth of water?—As much as eighteen inches. The river should be dredged, and it would be better to make it even deeper than it was originally.

Mr. Field.

1308. Has it been dredged recently?—Somebody anything has been done for the last fifteen years.

1309. I think we had a statement from the Secretary of the Grand Canal Company that they had two dredgers and had out, I think, £1,900 on dredging on the whole system?—That might be at the upper end. What we want to emphasise is that the traffic from Waterford up the canal has been practically wiped out by the extent to which the channel has been allowed to silt up. In his evidence Mr. Phillips dealt, I think, with the question of the canal navigation generally when he was speaking of the amount of dredging done. You can produce sheets to show that certain works have been done, but the fact remains that the sandbanks are there. The silting is there. The sandbanks have not been removed. There has been no general dredging done on the Barrow system. We are preparing a statement dealing with this whole matter for the Committee.

Mr. Lindsay.] Mr. Phillips handed in one of the sailing bills of the Grand Canal Company showing that there were three days sailings.

Mr. Murphy.] There is an improvement in the service owing to the complaint that we made from Graigueenamagh. There used to be practically no service. It might take a fortnight to get stuff. The service is fairly good since the Control Committee looked into the matter when we sent them a memorial.

Mr. Lindsay.

1310. Mr. Phillips made a point regarding the difficulty of getting suitable men to work the boats?—He does on the Barrow.

Witness.] The wages of ordinary boatmen before the war was 18s. a week. You cannot expect to get good men at 12s. a week.

Mr. Field.

1311. Has it not been reduced, Mr. Thompson?—Yes, but you have a scarcity of labour. When you put up your wages all in a hurry you cannot get trained boatmen from the mountains ready to take charge of a boat.

Mr. Lindsay.

1312. That would hardly account for the people of one district not working with people from another unless one gets paid better than another?—That difference is only apparent. For instance, the canal now cannot navigate the Barrow. These men don't understand the river, and it is necessary to get men who do.

Mr. Field.

1313. I have a letter from a gentleman complaining that there are no regular sailings on the canal, and stating that there used to be three sailings from Dublin weekly. He says that the majority of the goods is sent by train. This letter comes from Bagnalstown. The writer says that a rebate is given by the Railway Company to the large consignors?—Bagnalstown has

Mr. Field—continued.

been affected in that way, and also Carlow, Athy, Portlannington, Tullamore, and one or two more towns were affected. The arrangement was whatever the average takings of the Canal Company for a certain number of years had been that the Railway Company made up any shortage on that average, or a proportion, say nine-tenths, of it. There was therefore no necessity for the canal to keep up their traffic.

Mr. Murphy.] All the wheat that comes to the mill at Bagnalstown comes by rail, though the mill is on the canal.

Mr. Field.] In the letter I have already quoted from, the writer states that the Grand Canal Company was asked to put up a galvanised store, but refused, with the result that the traders had been obliged to transfer their traffic to the railway.

Mr. Murphy.] That is true, and Mr. Brown told me he would prefer the canal if he got a proper service.

Mr. Field.] Is that not a clear case of refusing traffic and diverting it to the railway?

Witness.] It is a case of refusing facilities.

Mr. Lindsay.

1314. The official of the Grand Canal Company stated that they were only by-traders with Waterford. They said they could not provide accommodation there, Mr. Thompson?—They would get it if they asked for it.

1315. They would only provide accommodation for themselves, and not for other by-traders?—My point is that the traffic that goes from Waterford to Carlow should be provided with sufficient facilities. The only people who are in a position to find the facilities are the Grand Canal Company. They would find no difficulty in providing facilities if they asked for it.

Mr. Field.

1316. Have you anything to do with the management of the canal?—No.

1317. Have you made any representation to the Canal Company?

Mr. John S. Hears, J.P.] The traders of New Ross do not use the canal because the service is too slow.

Mr. Lindsay.

1318. What is the state of the river from St. Mullins to Waterford?—It is all right except at St. Mullins.

1319. What is the jurisdiction of the New Ross Harbour Board?

Mr. O'Gorman.] Their jurisdiction extends as far as Ennistown on the one side and St. Mullins on the other. It has nothing to do with the upper part of the river. The Board gets no tolls at St. Mullins.

Mr. Lindsay.

1320. Is the river tidal at St. Mullins?—Yes.

1321. Would it not be reasonable to get the authority of the New Ross Harbour Board extended to the lock gate?

Mr. Murphy.] I don't know that it would pay them.

Mr. Lindsay.] You cannot expect the Grand Canal Company to go outside their jurisdiction and do dredging for which they would get nothing.

Witness.] In the original scheme there was a lock arranged, but it was abandoned for some reason on the old Barrow navigation.

Mr. Field.] Could not the New Ross people help the Government in the carrying out of the necessary improvements in the river?

Mr. O'Gorman.] New Ross has no jurisdiction at the quay at St. Mullins.

Mr. Field.] Is there any financial proposition to be put forward as to what should be done in order to effect the necessary improvements?

Mr. Murphy.] We have promised to send in to the Committee a full statement. Shall we have an opportunity of doing so?

Mr. Hearn.] Yes.

Witness.] The Barrow system, which runs from Athy to St. Mullins, represents only a question of £25,000 altogether. Anybody who had £25,000 could get the whole system. I think the whole thing could be got for £25,000. If so it ought to be taken over by the Government and made a proper public highway.

1322. You

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MR. THOMPSON.

[Continued.]

Mr. Field.

1322 You are in favour, Mr. Thompson, of the canal being under State ownership?—Yes.

Mr. Lindsay.

1323 Do you mean, Mr. Thompson, that it should be toll free?—No. The difficulty with the canal and the Barrow is that—that they get, particularly in the canal, a big income from rental, and that is a tremendous mistake where the interest of the public is concerned.

Mr. Field.

1324 Where does that rental come from?—The sale of water and the letting of property.

Mr. Lindsay.

1325 The Grand Canal Company is not a very large dividend-paying concern?—About 5½ per cent.

1326 Why should they discourage the taking of tolls?—I don't know that they did that, but they did not give proper facilities to the boats. If you will look at the figures you will see that the by-traders carried about half the traffic.

Mr. J. S. Henson, J.P. I think the Directors of the Great Southern and Western Railway and of the Grand Canal Company are the same.

Mr. Lindsay.

1327 Will you give us the names, Mr. Henson?—Mr. Weldon is one. He is Chairman of the Grand Canal Company and Director of the Great Southern and Western Railway. I think there are some others too.

Chairman.

1328 Do you know, Mr. Thompson, if any sites have been needed by the Grand Canal Company to by-traders to put up warehouses?—I cannot answer that question.

1329 Mr. Phillips stated to us that he would raise no objection to by-traders putting up warehouses on long leases and hiring out portions of them to other people also trading on the canal?—I cannot say anything about that.

Mr. Murphy? Nobody ever applied for a site. We applied for storage accommodation, but got no thanks for asking for it.

Mr. Field.

1330 Did you get it, Mr. Murphy?—No.

Mr. Lindsay? They say it is not their business to provide sites.

Chairman? They say they are quite willing to let sites at reasonable rates and on long leases.

Witness? There was never any charge made for goods laid on the canal banks until recently. They charge you now even when you have made the bank suitable for laying goods on. It is only a small matter and not worth discussing, but it is establishing the principle that they wish to charge for the wharfage. There was never any charge made for storing stuff until recently.

Chairman.

1331 Is that charge for things delivered immediately or stacked?—If you are making delivery to their boats they don't charge you. If it is a by-trader's boat they charge wharfage.

Mr. Murphy? If you put the goods directly into the company's boats they would not charge wharfage, but if you put it on the quay first they would.

Witness? They charge us in every case.

Mr. Murphy? They don't charge us in Graigue if it is not put on the bank.

Witness? We have to deposit everything on the bank.

Mr. Lindsay.

1332 If it went on indefinitely, would you not get the right of user and could you not do it for ever? The charge is made possibly for the purpose of preventing the public from acquiring a right?—I don't know. If there was any right it was established long ago, because the charge was never made.

1333 You have been doing it for 20 years, Mr. Thompson?—Yes. It is, however, only a small matter.

Mr. Field.

1334 Do they give you any assistance, Mr. Thompson, in the loading or unloading?—No, never.

Mr. Keating? I would like to draw attention to another matter—the canal system between here and the North towards Kilkenny. I believe the New Ross Harbour Commissioners control it as far as Fairliego, a distance of seven or eight miles, and from that I don't think it is developed properly, and as Mr. Murphy happens to be a member of the County Council I would like to know if he can say anything about it. We saw Alderman Potter and the Secretary of the Kilkenny Council at our sittings in Dublin. They did not come before us as witnesses. They volunteered a statement.

Mr. Murphy? It would be a great advantage to Thomastown and to the city of Kilkenny if this improvement could be carried out. I am not personally interested in it, but for the good of the country I would like to see it done. You will find some information on the subject in the Canal Commission Report as I could tell you.

Mr. Henson? You have nothing to add to that.

Mr. Field.

1335 What do you think ought to be done?—I think a proper canal might be constructed.

1336 To connect the Nore and the Barrow?—Yes. There is an estimate in the Canal Commission Report for the cost of doing it. It will be a great benefit to Kilkenny City and Thomastown.

Mr. Henson.

1337 You think in the present condition of the carrying trade it would be of advantage to be able to take goods by the canal?—Yes.

1338 What kind of a trade is there between Thomastown and New Ross?—There is a big mill in Thomastown, and the canal passes by the door, and they have to cart their traffic from the railway. There is another mill owned by Mr. Moss, where stuff has also to be carted. The coal from the Castlecomer Collieries could be put on the canal.

Mr. Lindsay.

1339 How far is it from Castlecomer to Kilkenny?—About eight miles.

Mr. Henson? It is over 12 miles.

Mr. Lindsay.

1340 Would you suggest that this canal would pay?—I think it should.

1341 I don't think the supporters are optimistic about it?—You will have an increased traffic in coal now that it comes into Kilkenny.

1342 If you take the estimate in the Canal Commission's Report and multiply it by two, it would take considerable traffic to make a return?—I have no personal interest in the matter. Mr. Moss might give evidence before you.

1343 There is a big mill in Thomastown?—Yes, and another at Benestabridge.

Mr. Murphy? I suggest that the facilities which it is stated are about to be provided for the transfer of coal deliveries on the Barrow are inadequate.

Witness? There are only about three points where the canal can form a junction. One is at Portarlinton, the other is at Aiky, or this new section, and here at New Ross the Dublin and South Eastern can form a connection with the river navigation.

Chairman.

1344 They have not got it?—No.

Mr. Henson.

1345 Is not there a practical difficulty at Portarlinton?—The canal is a considerable distance from the railway station?—No; it is not more than a hundred yards.

Mr. Lindsay.

1346 The connection here does not seem to be made used between the railway and the river?—No.

Mr. J. G. Henson, Member of the New Ross Urban District Council? I would like the Committee to take

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Mr. THOMPSON.

[Continued.]

Mr. Lindsay—continued.

note of one remark made by Mr. Murphy. He stated that the canal service was very inadequate until they made a complaint to some Central Committee, and, following that, they were well served. The way the matter strikes me is this, that it seems to be a great advantage to have some authority in the country to which traders might refer and get their grievances redressed. I don't know whether there is such an authority or not. Perhaps the authority to which Mr. Murphy refers is only a temporary one during the war. Seeing what has been done by Mr. Murphy in that case, it would be most advisable to have a permanent authority in the country to which complaints might be referred, and it should be an authority that would have power to carry out what is proper.

Mr. Lindsay.] The body to which Mr. Murphy refers is the Irish Sub-Committee, which manages railways and canals. This is only a war measure, and the

Mr. Lindsay—continued.

Government have guaranteed the canals in the same way as they have guaranteed the railways during the war. If they tell them to improve the service the State pays.

Mr. J. G. Heenan.] Seeing that the complaint made by Mr. Murphy to the Central Committee was so effective it would be advisable to have a permanent body in existence of that character.

Mr. Lindsay.] Possibly at the cost of the taxpayer.

Mr. J. G. Heenan.] No matter what recommendations you make, if traders are financed, is not the only remedy some such authority as I have suggested?

Chairman.] I thank you, gentlemen, for the information you have given us. We will take due note of all we have heard, and report to our Committee when it meets next month.

(The Sitting then concluded.)

SIXTH PUBLIC SITTING: FRIDAY, 13TH SEPTEMBER, 1918,

At the Town Hall, Waterford, at 11 a.m.

MEMBERS PRESENT:

Colonel Gosselin, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.

Mr. P. J. Heenan.

Mr. PHILIP MACNULTY, Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., in the Chair.

Chairman.

On the 8th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and co-ordination; and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements, and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members,

Chairman—continued.

to investigate and report upon facilities for transport offered by the ports and canals of Ireland to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. It is for that reason we have come here to Waterford, and we shall be very glad to take any evidence that you may wish to supply, showing the facilities for transport offered at Waterford and by the canals and rivers connected with Waterford.

Mr. H. J. Poore, J.P., representing the Waterford Harbour Commissioners, called in; and Examined.

Chairman.

1347 You represent the Waterford Harbour Commissioners?—Yes. This is an Admiralty Chart of the river. You may find it useful. Under our Act we have no Chairman, but I am always put into the chair when I am present at the meetings of the Harbour Board.

1348 What is the precise title of the body?—The Waterford Harbour Commissioners. The Act describes us as Commissioners for improving the port and harbour of Waterford.

Mr. Keating.

1349 Are the Commissioners nominated?—There are 24 members on the board, of which 12 are elected by the Chamber of Commerce and 7 by the Waterford Corporation, and 5 by the Borough of Clonmel. Our last Act dates from 1816. That Act was done away with by the Act of 1846.

Mr. Heenan.

1350 The Act of 1816 was repealed?—Yes, by the Act of 1846. I don't suppose you want me to go into the history of the constitution of the Harbour Board. The jurisdiction of the Commissioners extends from three miles outside the land limits to a place called Genuagh, about two and a-half or three miles above the bridge.

Mr. Lindsay.

1351 How is it that the Clonmel people get representation on your board?—In those days there was a very considerable waterborne traffic between Waterford and Clonmel, and I suppose it was felt that some representation should be given to the traders of Clonmel.

1352 One would rather assume that the jurisdiction would go as far as Clonmel?—No, it does not.

1353 Did it ever go to Clonmel?—I believe the story is that it was owing to the influence of the Member of Parliament for Clonmel for the time being that representation was given to Clonmel on the Harbour Board. He opposed the Act unless such representation was given to Clonmel. That was how Clonmel came to be represented on the Waterford Harbour Board. There used to be a large number of barges in the old days working between Clonmel and Waterford. They were much smaller than the barges to-day. There are three obstacles in the river. The first is nearly opposite Dancannon, and is known as the outer bar.

Chairman.

1354 What is the depth of water up to Waterford at the present time?—On the outer bar it is 15 to 16 feet low water, ordinary spring tide. Then there is another bar at a place called Check Point, and that is the same depth, say 15 feet. There is also the Queen's

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[Continued]

Chairman—continued.

Queen's Channel. The depth of that is about 14 feet. The Queen's Channel was cut about 50 years ago. When we got up to the city we have a depth in the river from 14 feet in some berths, 22 feet in other berths, and 24 feet 6 ins. and 25 feet in one or two berths. The system of discharging in Waterford is by means of hulks, with stages attached to the sea wall. We have found that a very useful method of discharging such vessels as tea steamers—that is, the circum-channel traffic.

Mr. Hanson.

1355 Is it hulks or pontoons?—We call them hulks. It is 80 feet to the outer edge of the hulk or pontoon. Some years ago we borrowed money and constructed a length of jetty about 350 ft. long. It was built of ferro-concrete, and is a very substantial structure. We feel that it would be a great improvement if this construction could be carried up and down the quay between the bridge and what is known as the Millford hulk at the end of the quay. This extension would be a tremendous improvement to the trade of the district.

Chairman.

1356 What depth of water have you got alongside the jetty?—45 feet at low water. If this jetty could be extended up on both sides of the existing piers that have been built it would, as I have said, be a tremendous help to the trade of the district. Barges at present coming down from Clonmel and Carrick, and up from New Ross and other places, have got to be discharged at the hulks by hand labour, and that takes considerable time; whereas, if in place of the hulks we had jetties, this could be effected with cranes, and in that way the handling of traffic would be much more speedy.

1357 Is there any suggestion that if that jetty was continued that you would have railway communication?—The question of railway extension with the quays has been raised on several occasions. The only method that I can see of obtaining railway communication to the quays if they were extended as I suggest, would be to run the railway beyond the bridge up to the side of the old Danesman station, where, I believe, the railway still runs down and across the Burr Bridge and on to the other system. There are five railways radiating out of Waterford—the Great Southern and Western Railway (Limerick and Dublin) line, the Dublin and South Eastern Railway (Dublin and Wexford) line, the Rosslare line, and the Danesman, Ferness and Cork line—so that Waterford as a distributing centre occupies a very important position. You have, in addition, a splendid river, which is navigable up to Carrick for motor or steam barges. If the portion of the river between Carrick and Clonmel were canalised, it would bring Clonmel within more practicable reach of Waterford for waterborne traffic. On the other side you have navigation down to the Barrow, and from New Ross on to St. Mallick, where it joins with the Grand Canal, so that Waterford as a distributing centre occupies a unique position. If the trade is developed and the proper system of barges put on, it would hardly tend to the improvement of the district. Waterford is the natural outlet for this part of Ireland. It is within one month of the English coast. Liverpool is 250 miles distant, and Glasgow 222. That shows that Waterford is very readily accessible to English ports. I may mention that steam coal was obtainable here before the war at 14s. or 15s. a ton delivered. There is another part of the river where the extension of the jetty would be a great advantage, and that is above the bridge on the right-hand side as you face up the river, where the Great Southern and Western Railway comes down. If the jetties could be extended there, it would give an enormous benefit to the trade, as even the Great Southern and Western Railway Company are not able to provide waggons in sufficient numbers to discharge the vessels quickly, and it will be more important in the future to have quick discharges of steamers than even in the past. We have had vessels carrying nearly 5,000 tons discharged here. They were of the modern type. We had steamers up to 400 feet long. Dredging should be done at Skelting House Point, near Check Point.

1358 You have told us that the deepest draught that you have got at low water for discharging is

Chairman—continued.

26 feet?—There is a berth with 22 feet of water and another with 25 feet. The deepening of the berths at Waterford could be done by dredging. There is a narrow portion of the river down below where the box factory was, which could be dredged out. It would be necessary to dredge a cutting in the curve bar. Sir John Coode surveyed it about 45 or 50 years ago, and he estimated for a width of 500 feet and for a length of about 5,400 feet to give a depth of water of 22 feet. Twenty-one feet would be all right in these days, but, with the great increase in the size of vessels which has since taken place, a deeper cutting would be required. What the cost of such a cutting as I have mentioned would be, of course, I don't know, but I think it would run into a couple of hundred thousand pounds, if it could be done for that. His original estimate was \$64,000.

1359 Was any estimate made as to the quantity of stuff that would have to be removed?—No.

Mr. Hanson.

1360 What exactly was the estimate for at the time?—To make a cutting 500 feet wide, 5,400 feet long to a depth of 21 feet. This plan that I show you was prepared when there was an inquiry made as to making a harbour of refuge of the port of Waterford. There is no place on the whole coast nearer than Cork Harbour where vessels could enter, and, if this place was dredged sufficiently deep, there would be no hindrance to vessels running into Waterford in all conditions of weather. I should mention to you that there is a rise and fall in the tide of 1½ feet. That is about the maximum.

1361 That would be spring tide?—Yes. On neaps it would be 3 to 4 feet. The amount of spoil in this proposed cutting in the outer bar is 1,120,000 cubic yards.

Chairman.

1362 That is mud?—Yes. Check Point Bar is alluvial deposits. There is boulder clay at Danesman. I would like now to refer to the possibility of Waterford becoming a Transatlantic station. If this outer bar were dredged to 25 feet at low water, spring tide, it would open the possibility of Waterford becoming a transatlantic station. Of course, claims are being made that the transatlantic ports should be on the west coast of Ireland, but that could only be if these lines carry passengers. Once they discharge their passengers at Galway, they then come round and go back; but if the lines were to bring passengers as well as cargo, the discharging of the passengers at Galway would mean considerable delay in getting the steamer round to Liverpool. If Waterford were made a transatlantic port the steamers could come in and discharge their passengers and proceed at once to Liverpool. A railway communication could be made at Danesman to the Rosslare line, and if there was a channel ferry system they could go on straight to London and other parts of England.

1363 That would mean a much deeper channel?—I suppose it would; but if it was considered that Waterford was the best route, a further deepening would be a comparatively small matter.

1364 We have it on the minutes of evidence that you make that suggestion?—Thank you.

Mr. Hanson.

1365 What was the cost of the jetty the Commissioners constructed?—About £9,000.

1366 And it is 360 feet long?—Yes.

1367 That is about 220 per foot, roughly?—I think it is something less. However, we will take it at £30.

1368 So that an extension of 1,000 feet would cost you about £30,000?—Yes.

1369 Would it be a great advantage to extend the present jetty 1,000 feet?—I think it would. The matter will have to be faced, because the condition of the hulks is such that a considerable sum will be required to keep them in order. We have not been able to do that for some time, but once the war is over we will have to face a certain amount of expense in connection with these hulks. Our expenses in connection with the jetty are entirely in favour of the jetty as against the hulks. The hulks undoubtedly prove very serviceable.

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[Continued.]

Mr. HENSON—continued.

1369. The port would be very considerably improved by the extension of the jetty quite apart from the dredging you suggest?—Undoubtedly.

1370. What is the attitude of the people here towards the improving of the river?—They are all in favour of it.

1371. That is to say by expressing sympathy?—Yes.

1372. Would a project involving a financial outlay meet with a response?—It is rather difficult to expect private individuals to contribute money to a public matter.

1373. If the harbour is a paying proposition, would not the public-spirited people of Waterford assist?—I don't know of any case where private individuals have provided out of their private resources money for the improvement or upkeep of a harbour, except in the case of privately owned harbours, of course.

1374. There is a Harbour Loan now?—Yes. Our total loan is about £19,600.

1375. Borrowed from whom?—Borrowed from the public, and £9,000 from the Clyde Shipping Company. They advanced us £9,000 towards the cost of this jetty. We pay them interest on it.

1376. The point is that the spirit of self-help ought to enter more into the spirit of private enterprise?—I agree. I think it ought.

1377. The whole trend of the representations made to us since we commenced our work is that the State, or the Government, or the taxpayer, or somebody represented by that expression "the Government," should contribute to every Irish scheme that is suggested. In other parts of the world the general principle is that if an enterprise can pay it ought to be supported by the public spirit of the locality. Why I ask you that question about Waterford was to ascertain how far the people of Waterford were prepared to back their own enterprises?—It is really all a question of the interest you can offer them to get a further loan. I have already told you that the revenue of the Harbour Commissioners is entirely derived from dues on shipping alone. There are no cargo rates here. Owing to the falling off in the revenue due to the war, it became necessary to consider a recommendation made to the Board to seek powers to impose dues on cargoes. It is something to say that Waterford has been, and is still, I believe, the only free port of any size in the United Kingdom.

1378. Do you think that the canalisation of that section of the Suir between Carrick and Glommal would tend to a large measure of improvement in the economic condition of the South of Ireland?—I do.

1379. Waterford, as you say, serves an immense tract of country?—Yes.

1380. Can you make any suggestion from the Waterford point of view of improving transport with Carrick?—You would want to put more steam barges on. Up to a few years ago there was only one steam barge running between Waterford and Carrick. That was a barge that was owned by the Suir Navigation Company, and it may interest you to know that this barge was called "The Father Matthew."

Mr. Field: I am sure it carried more whisky than water.

Mr. O'HENNESSY.

1381. Tell us something about the Suir Navigation Company?—There is the River Suir Navigation Company and the Suir Steam Navigation Company. It is the River Suir Navigation Company that got the Act of Parliament. The project of canalising the river between Carrick and Glommal is an old one, as part of the development that ought to take place in the inland navigation of this country.

1382. So that the people of Waterford would be in sympathy with any scheme that involved the improvement of the Harrow and the Suir?—Yes. Obviously Waterford is really the only port in that district that can maintain a regular and proper cross-Channel service. I am talking of before the war and what we hope will happen after the war. Owing to the number of vessels sunk, our cross-Channel service has been cut down. It is a matter of the greatest importance that the river navigation and the five railways that radiate from Waterford should be used to their fullest extent.

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Mr. LEADLEY.

1383. You cannot tell us if there is any definite authority over the river between Glommal and Carrick?—No.

1384. Supposing a grant were given for the improvement of the river, and that they were not an adequate authority, would you be prepared to assume responsibility for the river as Harbour Commissioners?—Yes.

1385. It certainly would strengthen our hand, if we did recommend any grant, if we could say that the Waterford Harbour Authority were willing to take over the district?—I don't see any objection.

Mr. FIELD.

1386. Can you tell me the reason why Waterford has taken up this exceptional position of levying all their revenue on ships and not having town dues?—Why it was done originally, of course, I cannot tell you.

1387. Why was it preserved in?—Because it was not felt that further revenue was required for the purpose, and also the accommodation that we were able to give, in my view, was reasonably satisfactory for the class of traffic entering the port.

1388. May I ask you, as a member of the Harbour Board, do you consider the absence of a proper quay and practically no cranes, and with a debt of £19,600, that you have revenue enough to carry on the port satisfactorily?—If there had been no war, we believe we would have accumulated funds to have gone on with the further jettying.

1389. How much were you able to realise out of the ship dues?—Our revenue used to be £12,000, £12,000, and £14,000.

1390. And still you owe £19,600?—Yes.

1391. And you did no dredging down the river and you have no cranes?—As to the question of cranes there was really no necessity for cranes, or, rather, there was not much use in having them, because up to a few years ago we had the wooden bridge.

1392. There are no sheds on the quays?—No.

1393. Is there any probability of getting them?—Some years ago it was put forward that sheds should be constructed on the quays, but it was opposed at the time. The corporation did not like it.

1394. Sentimental reasons?—Largely.

1395. They could not see the hills on the other side?—That objection has largely disappeared.

1396. Are you aware that in the majority of harbours—in fact, in all harbours in Great Britain and Ireland—as a rule, half of the revenue comes from ships and half from dues?—Yes.

1397. And, notwithstanding that fact, Waterford wanted to be singular?—We were able to do without it. Was it not better for the community that there should be no dues on the articles if we could do without them?

1398. I cannot agree with you, because I cannot agree that foreign manufactured goods should be free of some dues. I cannot agree with the attitude taken up by your Commissioners on this matter, having regard to the fact that they owe £19,600, have done no dredging, have no cranes, and practically no quays?—We paid off a debt of £20,000.

1399. And you got into another debt of nearly £20,000?—It is a small debt.

1400. Is it your opinion that if these improvements which you have put before us were carried out they would open up the traffic as far as Glommal and improve the port of Waterford?—Yes, they would open the district in a larger way than it is at present.

1401. And you think that from an Imperial point of view, altogether outside of what might be called the parochial view, that this is work that ought to be undertaken?—I think so.

1402. You are trying to impress that view on the Committee?—Yes.

1403. You would be prepared to see what financial assistance or co-operation Waterford could give?—Chairman, I don't see how we could.

Mr. KEATING.

1404. You said early in your evidence that there was a very large water-borne traffic between Waterford and Glommal?—There used to be.

1405. Would you think it unfair if I asked you to explain the reasons that it has disappeared?—Well,

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[Continued.]

Mr. Keating—continued.

as far as the water-borne traffic is concerned, there were difficulties in the navigation of the river, and the shoals presented it. I think if the river could be canalised from Carrick to Channon, and given a longer stretch for river-borne traffic, it would be good. These steam barges that ply between Waterford and Carrick carry very much more cargo than the barges or boats carried at the time I speak about, when there was a large number of them on the river.

1405. Would you suggest that it was due to a special economic policy on the part of the State that that trade was interfered with in any way?—No.

1407. It appears to me that the Committee ought to know this from a responsible person in Waterford, whether this would be considered a fair deduction that, owing to action by the State, the trade has very largely diminished, and that, further, that would be an argument for the State restoring the condition that existed before?—That opens up a very wide subject.

1408. This Committee will not be able to obtain any advantage for Waterford, simply because we want to do so, no matter how sympathetic we may be. We must have a case that would appeal to Parliament, and I just want to see what that case is in the minds of the responsible men here in Waterford. The argument you advance is that it would be to the interest of the State to spend a very considerable sum of money in order to develop Waterford and the South of Ireland generally?—Yes.

1409. I don't want to go into the financial question that has been touched on, but, undoubtedly, on the other side of the water, there is a very great objection to the State doing that kind of work instead of the people who are mainly concerned in connection with it, and we want to have some ideas on that point.

Chairman. I don't think we can get it in that way.

Mr. Keating.

1410. You mentioned the subject of coal. You knew that there is plenty of coal in the coalfield in Limerick?—Yes.

1411. Would you make any suggestion for improving the facilities for getting the coal into Waterford?—They are making a railway connection with the Castlecomer coalfields, and it is going to join the Great Southern between Ballynagot and Kilkenny, and that will open up a prospect in normal times of coal being brought down here. We have used the Castlecomer coal, but the cost of haulage puts it out of court. That would be all obviated once the railway is constructed, and the same applies to the other colliery at Wolfhill.

Colonel Greflas.

1412. In regard to handling traffic in the port, is there sufficient labour?—Yes. There will be sufficient labour when the men who recruited for the Army return. Before the war started there was sufficient labour.

Mr. G. A. Warr, Agent, Clyde Shipping Company, and Member of Harbour Board, Waterford, called in; and Examined.

Chairman.

1422. Before the war, was the business of your company increasing or decreasing?—I think it was increasing.

1423. It has been interfered with by the war?—Yes, seriously, owing to the loss of ships chiefly.

1424. Is it possible that after the war that as many ships will be put on as before?—Not at once, but we hope so after a time.

1425. What is your business principally?—We maintain a regular cross-channel service with Liverpool, Glasgow, Bristol, London, Plymouth, Southampton, and other ports. Waterford is a very important cross-channel centre.

1426. What are your main exports from Waterford?—Dried stock and a considerable export of bacon, butter, eggs, margarine, and condensed milk.

1427. Produced in the vicinity of Waterford?—Partly; but a very large proportion of the trade of Waterford is an interior trade. Waterford is a natural port serving a very large interior area, in which there are a great many important towns, such as Limerick, Tipperary, Channon, Dungarvan, and so on. We have

Colonel Greflas—continued.

1413. Had you any labour difficulties in Waterford?—Yes, with the men working for the Clyde Shipping Company and some other firms, and there was a coal strike some years ago in connection with the discharge of a collier, but I don't say that there are any more industrial disputes here than anywhere else.

1414. Have the disputes been sectional or have they spread to the whole trade?—Sectional. In regard to the way work is done here at the port we can undoubtedly handle grain cargoes here very expeditiously—between 30 and 100 tons an hour.

1415. That is at one point?—Yes. In regard to the colliers, they can be discharged very promptly, and the cross-channel vessels have to discharge within whatever time is allowed in order to fill up a cargo and go on the return voyage. About the discharge of vessels with coal, there has been a good deal of trouble on account of the want of railway wagons. The Great Southern and Western Railway Company have many demands upon them all over their system, and undoubtedly Waterford had been on many occasions left without wagons and several times there were not sufficient wagons for the steamer.

1416. Was that the case before the war?—Yes, there were complaints before the war. I may say on behalf of the Great Southern and Western Railway, when they realised the position they ordered several hundred new wagons.

1417. Did that transfer much traffic to the canals?—I cannot say that it did.

1418. So far as you know it did not increase owing to the difficulty that the Railway Company at times had in dealing with the coal?—I will tell you what it has done. It has left an effect upon the minds of the owners of these carrying steamers that they do not like Waterford as a port, and they ask for higher freight owing to the delay. There is a difficulty in having no place where the coal can be dumped, and it is necessary that the coal should be put into the wagons at once.

Chairman.

1419. Would you tell us if you consider that there is sufficient warehouse accommodation for the canal boats?—You saw the accommodation the Canal Company have. I don't think the accommodation would be sufficient if the canal ran a sufficient number of barges or steamers between St. Mullins and here. As regards the owners of other barges, they bring up coal or barley to private consignees.

1420. Have you got any coal bulk?—No, we have not. There is a small coal jetty owned by the Great Southern and Western Railway Company at the other side of the river, but there is no room on it for putting a cargo of coal.

1421. And you have no bulk fitted up for coal?—No.

Chairman—continued.

a very large distributing trade, and we have unusually good facilities for distributing owing to the number of railways and the two rivers.

1428. Have you good facilities for the shipment of cattle?—Yes; the hulks are particularly suitable for that trade. We are well up to the average in the handling cross-channel cargoes.

1429. Have you plenty of tugs available here?—No, there are none in the harbour at present at all except the railway tug, which is a very small thing for towing barges.

1430. What is your main import here?—It is a very diversified cargo. We bring in normal things American bacon, sugar, flour, iron, and, I might say, a miscellaneous cargo from Liverpool, Glasgow, London, etc. The imports are larger than the exports.

Mr. Henson.

1431. Larger in tonnage or value?—I can only speak for tonnage.

1432. Do you deliver it to the canal boats?—Not a great deal.

1433. D

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Mr. WAIT.

(Continued.)

Mr. HANSEN—continued.

1435 Do the canal boats lie alongside?—The traffic we have is usually not sufficient to justify such an arrangement. The canal traffic is not of such sufficient volume, and have to be landed on the quay.

1434 You don't separate the bulk of loading?—No, we don't do so separately. It could be done if there was any object in doing so, but there is no object.

1435 You have had considerable experience of ship-piers?—Yes.

1436 At other ports besides Waterford?—Yes.

1437 As a shipping man, do you think the port of Waterford capable of greater development?—I do.

1438 Involving considerable outlay?—Yes.

1439 Do you think that outlay is justifiable on natural grounds?—I do.

1440 Have you given any thought to the development of inland waterways in conjunction with the port?—Not specially, only incidentally.

1441 You see possibilities in that direction?—I do. I know that our trade with Germany by water has been hampered for want of facilities, due to flooding and drought.

1442 Is there much interchange of trade between your ships and the barges on the Suir?—Yes, there is a good deal of interchange of trade. They bring large quantities of stuff, and they come alongside and take large quantities chiefly to Carrick.

1443 Do you know that that trade could be extended?—I don't know about Carrick-on-Suir, as all the traffic goes there at present.

1444 Can the traffic be increased with proper facilities at this port?—If the port traffic were increased by greater facilities it would have a reflex action on all the towns about.

1445 Would that reflex action be interfered with by the railways?—Of course the railways are competing.

1446 As a shipping man with a wide experience of the administration of shipping at many ports in this kingdom besides Waterford, you think this port is capable of considerable development if the necessary expenditure could be provided?—I do.

Mr. FRANK PHILLAN, representing Waterford Chamber of Commerce, called in; and Examined.

Chairman.

1456 You have heard the evidence already given. Can you give us any further information?—I was not here while Mr. Ford was giving his evidence. I am only here about 30 minutes. In my opinion the port could be greatly improved by two of the biggest obstructions being taken away—the ford and the bar—and also by making deep water quays. Before the war the facilities given by the Harbour Commissioners were almost adequate for the trade that was being done then, but during the war, and particularly after the war, the quick discharge of steamers would be essential. Deeper water would also be coming here, or likely to come here, and, of course, naturally, they would not be able to come up the river and discharge quickly unless we had those facilities.

1457 You think the trade of Waterford would be considerably improved if you had better transportation facilities?—I do.

Mr. HANSEN.

1458 What are the relations between the Chamber of Commerce and the Harbour Commissioners?—They are very friendly.

1459 Do the bodies consult each other with regard to the development of the port and the expansion of the business of Waterford?—What really affects adversely the Harbour Board equally affects the Chamber of Commerce. What is against the interests of the port is also against the commercial interests of the city.

1460 Has the Chamber of Commerce ever considered the question of extending the railway lines along the quays?—Not during my time.

1461 From what Mr. Ford stated in his evidence it would appear that the extension of the railways along the quays has not received very much public thought?—I don't think it has received very much public thought. It was never mentioned during my experience in the Chamber of Commerce.

Q.178.

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Mr. FIELD.

1462 Are your boats all going out?—In the Liverpool trade we are full going out because live stock occupy a great deal of space. In general things we are not so heavy going out.

1463 If the live stock was subtracted from your export, what position would you be in?—We would not have sufficient to fill the clemens.

1464 You would have to go away partially empty?—Unless something else developed in its place.

1465 Are you of opinion that if the money that is suggested were laid out here on the port of Waterford that the expenditure would be justified from what might be called the Imperial as well as the local point of view?—Yes, I do.

1466 Would you be prepared, as a business man, to risk that expenditure, in view of the traffic you hope would come?—No, because it would not be remunerative as a business speculation for Waterford to do it.

1467 You think as an Imperial necessity in the interest of trade and agriculture you would recommend it being done?—Yes, under those conditions.

1468 Particularly if the canalisation of the river was properly carried out, so as to give access to the interior system?—I don't know that that would make much difference.

Mr. KENTING.

1469 As a business proposition you suggest you would not recommend it. Would you be prepared to say that if extra facilities were given to Waterford, such as is suggested, that it would not encourage the establishment of new industries about this locality?—I believe it would.

1470 How would that square with your statement that it would not be a business proposition?—I take it you are referring to the deepening of the channel. That is a very expensive matter, and in regard to the outlay that would be incurred I do not think any sinking fund or fund to meet the interest on it could be raised even out of any impressed trade which might result, and therefore it is that it is as an Imperial and not as a local proposition I would approve of it.

Mr. HANSEN—continued.

1471 Does not that strike you as a peculiar thing—that a Chamber of Commerce has not discussed such a vital question?—There was no use extending the railway along the quays until you had deep water quays. Ever since I was a boy I heard the question of deep water quays discussed. In fact, if I remember rightly, there was a scheme drawn up for that purpose. I think the cost was something like £20,000. I am now speaking of what I was told—what I heard from my father.

1472 Has your Chamber of Commerce thought at all about the canalisation of the inland waterways as affecting your port?—It was only within the last few days that we knew that this Committee were about to hear evidence, and we have not gone into evidence very deeply.

1473 Can you present us with a memorandum setting forth your views on these two points—firstly, the attitude of your Chamber as a representative body towards the development of the port from the Waterford point of view; and, secondly, its development from the national point of view as affecting the canals?—Certainly.

Mr. FIELD.

1474 Have you any direct representation as a Chamber of Commerce on the Harbour Board?—Yes. We have the power of electing 12 representatives from the Chamber of Commerce to act on the Harbour Board.

1475 You are practically the Harbour Board?—We are not.

My father [I explained in my evidence that the number of members on the Harbour Board was 24, and how they were selected.

Mr. FIELD.

1476 What is the average attendance, Mr. Phelan, of your members at the meetings of the Harbour Board?—We had an election to-day to appoint representatives from the Chamber of Commerce on the Harbour Board, and out of 34 meetings held during the last three years one member attended 33 and another member 27.

1699. You

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MR. PHILAN.

[Continued.]

Mr. Field—continued.

1468. You are picking out the best of them. You are putting the best eggs on the top of the basket?—There were only three members who had a bad attendance.

1469. Then you ought to have been able to do more. That is the way I look at it. You have allowed this business to go on for years, and never considered anything about railway connection or quays or cranes. The Chamber of Commerce apparently never made a move. There was no agitation about the matter?—The difficulty was the financial part.

1470. Did you try to approach the financial difficulty in any way? Did it strike you that if you have town dues that you would have another £24,000 a year

Mr. Field—continued.

added to your revenues?—I am personally in favour of town dues.

1471. Did you ever bring that forward?—I am only actively connected with the Chamber of Commerce for the last two years.

1472. Did you ever get beyond the discussing and resolution-passing point of view in connection with this harbour and the raising of funds? Was there any actual proposition made by the Chamber of Commerce to the Harbour Commissioners that you ought to get into line and provide facilities such as existed in other ports?—No.

Mr. DAVID MACDONALD, J.P., Mayor of Waterford, called in; and Examined.

Chairman.

1473. You would like to give us some evidence?—I believe that Waterford is in a unique position for the distribution of goods. It has five railways and two fine rivers, and if the obstructions were removed from our river I see nothing to prevent ocean-going steamers coming alongside our quays. I also say that, with the proper expenditure of capital outlay, our quays could be brought out to deep water with railway connection, and with proper canals we would then be equipped to provide the cheapest and best transport of any port in Ireland. Besides that, if there is a question of transatlantic port for the shipping of mails and passengers, I can see no more suitable place than the Waterford river, if it were properly dredged; and with a deep water connection from Duncannon to Ballyhack, and a connection with the Rosslare Railway, and a train-ferry thence to Fishguard, you would have the very best connection that could be formed between the New World and the Old. It all depends on the expenditure of capital to remove that serious obstruction in the river from Woodstown to county Wexford, and for the handling of produce traffic to inland parts through the Grand Canal to Dublin and through the river to Clonmel. The removal of two other obstructions would be necessary—one the bar at Clock Point, and the other known as the Queen's Channel. These improvements would enable overseas vessels of a tonnage equal to the tonnage that would be brought, say, through the Suez Canal—25 feet. With the expenditure of capital I don't think that any port in the three kingdoms could exceed the facilities that the port of Waterford would offer both for the transmission of goods forwards and for a trans-shipment to Fishguard.

1474. Deepening the river might be, perhaps, taken to be a national need, but nearly always, I think, in

Chairman—continued.

most countries, if the rivers are deepened, the localities and places on the river generally provide their own barges, facilities for handling, &c. Do you suppose that if the river were deepened that this would be done in Waterford?—I don't know whether your powers would go so far as to make quays.

1475. We can only recommend. I would like to know, if an appropriation were granted towards deepening the river, would the locality feel justified in getting in money that would bring in a revenue?—There is a scheme already under discussion between the Corporation and Harbour Board regarding the levying of town dues to be divided between the two bodies. That should provide us with ample means to do necessary local things. That would provide ample capital to provide all our local requirements. We would then get town dues from the immense localities which are served by Waterford. To levy these dues, however, we must get Parliamentary powers.

Mr. Lindsay.

1476. You have no existing powers?—No.

Mr. Field.

1477. Have the Harbour Commissioners any existing powers to levy these dues?—No.

1478. As I understand it, neither the Harbour Board nor the Corporation in their charter have the power to impose town dues on goods?—They have not.

1479. So you have to go to Parliament?—Yes, but it would be an agreed measure.

Mr. Field.] We have agreed measures before the House of Commons that we have been unable to get through for years. You will have to make a disturbance here to get anything done.

Mr. W. J. HENNESSY, Waterford Agent for Saur Steam Navigation Co., called in; and Examined.

Chairman.

1480-1. I understand that you are the local agent for the Saur Steam Navigation Co.?—Yes, sir.

1482. Can you tell me anything about the condition existing at the moment for traffic up the river?—Between Waterford and Carrick there is little or no difficulty. The principal defects are between Carrick and Clonmel, especially during the summer season, owing to the very shallow depth of water. The tide extends for about a mile beyond Carrick. Beyond that there is a system of horse haulage. The barges are hauled from Carrick to Clonmel by horses.

1483. What is the distance?—About 16 miles. Barges between Waterford and Carrick take on an average from 40 to 45 tons of cargo. Between Carrick and Clonmel the barges have to be lightened down to half a load.

1484. What draught of water have you got?—I don't know exactly what they would draw—two or three feet on an average, I think. In the summer time the 40 or 45 tons have to be divided between Carrick and Clonmel sometimes between three barges.

1485. How do you propose to remedy that?—The suggestion was made that a system of weirs be constructed at different points on the river between Carrick and Clonmel, or a system of canalisation adopted.

1486. Was any estimate obtained as to the cost?—I think there was.

Chairman—continued.

1487. I suppose we will get that estimate?—Our people intended meeting your Committee at Carrick and Clonmel with evidence, but asked me to appear here.

Colonel Griffin.

1488. Is there any obstruction in the river?—No, except the shallowness of the water.

1489. Is there a general shallowness?—There are a number of points where the river is shallow.

1490. Where does the shallow water begin?—About two miles beyond Carrick. I am speaking of the section of the river between Carrick and Clonmel.

1491. What is the state of the navigation between Waterford and Carrick?—It is all right.

1492. Is there any obstructions between here and Carrick?—No.

1493. You know of no complaint?—Not between Waterford and Carrick.

1494. What depth of vessels can you have up to Carrick?—It is barges we are interested in.

1495. What depth of barges can you take?—Four and a half to five feet fully laden.

1496. Is the river always passable with five feet?—Yes, between Waterford and Carrick.

1497. You consider no improvement is necessary between Waterford and Carrick?—No.

1498. What is the distance by water from Carrick to Clonmel?—About 15 or 17 miles.

1499. And

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Mr. HENDERSON.

[Continued.]

Colonel Giffen—continued.

1499. And there are obstructions along the way?—Yes, at intervals.

1500. What is the depth of water between the obstructions?—I don't know.

Mr. Hanson.

1501. You are the Star Steam Navigation Co.?—Yes.

1502. Have you got a charter?—No.

1503. And the name of the other company is the River Suir Navigation Co.?—Yes.

1504. Has that company got a charter?—I think so.

1505. Do you know anything about it?—No.

Mr. Lindsay.

1506. Do you get cargoes in both directions?—Yes.

1507. The boats are full going down as well?—Yes, as a rule.

1508. You are called the Star Steam Navigation Co.?—Yes.

1509. Are you in opposition to the River Suir Navigation Co.?—No. They are not a carrying company at all, but they are a company formed to levy tolls on incoming vessels.

34. H. J. FORD, J.P., Representing Waterford Harbour Commissioners, Re-examined.

Chairman.

1516. I understand, Mr. Ford, you desire to make a statement in addition to the evidence you have already given?—Yes, sir. I want to make an addition. There was a steamer of wheat ordered to come to Waterford, and she was carrying 3,700 tons. She was due to arrive in Waterford this week. Two days ago the Ministry of Shipping enquired as to whether vessels drawing 23 feet 9 inches of water could get up to Waterford to-morrow. The tide to Waterford to-morrow, is, however, the lowest of the year, so the Harbour Master replied that on that day if a vessel was drawing on arrival here 23 feet 9 inches she could only get about half-way up the river, where she could anchor, and either wait until Mon-

Mr. Lindsay—continued.

1510. They take the tolls and you do the work?—They have nothing to do with our barges at all. It is on inland trading steamers and vessels they take tolls.

1511. They are really the statutory authority for that portion of the river?—I believe so.

1512. I suppose they meet the Harbour Commissioners here at Waterford?—I don't know.

1513. Can you just give us any kind of idea of the portion of the river in which you are interested as to how it is to be dredged—is it a sandy bottom—is it absence of water?—It is absence of water that interferes with the navigation between Carrick and Clonmel in very dry weather, and floods in very wet weather.

1514. Is there a sufficient flow of water there in your opinion, if these obstructions were removed, to carry the barges in normal times?—Yes, if a series of weirs were erected to direct the surplus water to the proper channels.

1515. Have you any idea of what that would cost or has there been any estimate made as to the approximate cost?—I have no idea.

Chairman—continued.

day for the higher tide or else be lightened there. The Ministry of Shipping, late that night, decided that they would not allow the steamer to come to Waterford, so she is diverted to another port. Steamers bigger than this vessel have, however, come up the river, but they were of a modern type, and drew less water. I mention this incident about the wheat steamer to show how important it would be to have this obstruction in the river removed.

Mr. Hanson.

1517. That is really the Imperial aspect of the question you have now put before us?—Yes.

Member of Harbour Board, Waterford, Re-examined.

Mr. Field—continued.

on the improvement of harbour facilities?—One has an effect on the other, undoubtedly.

Colonel Giffen.

1522. It has been suggested that an arrangement may be made between the Corporation and the Harbour Commissioners to charge dues. Do dues in any other opinion diminish trade?—I don't like cargo dues, but we have come to realise that the increasing requirements of the port demand dues.

1523. Have you any fear as to the result which the dues will have on the port?—They might have a slight effect. That is inevitable, but we cannot get increased revenue except by the dues. We don't like having to do it.

Colonel, called in; and Examined.

Chairman—continued.

stands out clearly to show the importance of canalising the river, and that is the great amount of land at present under tillage all over the country. This big development in agriculture means an enormously increased traffic, and if that traffic were carried by water it would be a considerable saving not only to the producers, in freight, but to the railway companies which at present have a difficulty in handling traffic. For transport purposes, water conveyance is much cheaper than by railway. Machinery, coal, manures and other such heavy goods could be brought by water, and the congestion at the railways relieved. There are several gentlemen here, however, who are better qualified to go into this matter than I am. They would be better able to give you an idea of what can be done if proper attention were paid to this river. I may mention that the railway at the present time is unable to handle the amount of traffic at Clonmel, and consequently the quays for a long distance, even opposite private houses, have been filled with timber. The principal

Aldeerman P. O'H. PERREN, Mayor of

Chairman.

1524. I understand, Mr. Mayor, you wish to give us some evidence?—Yes. The motion given to us of this sitting was so short that there was not a sufficient opportunity to prepare a statement on behalf of the Corporation of Clonmel, whom I represent here. Under the circumstances my evidence will be of a very meagre character, and of short duration. The notice given did not permit us to collect facts and figures in connection with the important scheme we are advocating. I have only to refer you to the Report of the Royal Commission which commenced its sittings in 1905 and published its Report in 1911. Anything I have got to say is nearly contained in that Report. The same condition of affairs which existed then prevails to-day, except that the Suir is worse. If due attention were paid to the Suir from Carrick to Clonmel it would enormously increase the trade of that town. The Suir for years was the making of Clonmel, and if the river were canalised it would be the remaking of the town. One factor

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Alderman PETERS.

[Continued.]

Chairman—continued.

principal stores in Clonmel are located along the quayside, therefore it would be advantageous that the river should be canalised in the first place, owing to the fact that the railway is a long distance away, which means increased labour and therefore increased cost. If the river were canalised the Condensed Milk Factory, Messrs. Phelan Brothers, Messrs. Grubb and Sons, and all the other leading merchants could get their stuff from Waterford almost into their stores. Horse haulage—the method in use—is at the present time an antiquated form of transport. I remember seeing in a pamphlet a few days ago where some such form of haulage was in existence in some far away part of China. Such a method is not applicable to European custom and usage in the twentieth century. In order to show the Committee clearly why the present system cannot be made to pay, I need only tell you that Messrs. Phelan Brothers were obliged to take their boats off the river. The necessity for this improvement was recognised by the Government in 1912, when they allocated £5,000 in order to do something to improve the river.

Mr. Henson.

1525. Is that from the Development Grant?—No, I think it was given by Act of Parliament. Mr. O'Shea, M.P., presented the Bill. At the same time the river is under no particular control, and even the weirs, which were erected by the Irish Parliament nearly 140 years ago, have to be kept in repair, such as they were, by the boat owners themselves on the Suir. Certainly, the trackway, such as it is, was kept in repair by the County Council, and although I have no authority for saying so, I really think if a broad and generous scheme were introduced for the improvement of the river, that the County Councils of Waterford and Tipperary would considerably help the scheme. There are shoals and rapids in the river.

1526. I think what we would like to know is what traffic you received into Clonmel a few years before the

Chairman.

war and showing whether it has increased or decreased?—The manager of the firm trading under the title of Messrs. Grubb and Sons will be able to give you these figures. They are the carrying people on the river.

1527. Has any estimate been made as to the cost of canalising the river?—I cannot say. That is a matter for technical knowledge.

1528. Who is the authority over the river?—I don't think there is any authority from Clonmel to Carrick. As I have stated, the weirs which were put up by the Irish Parliament were renovated by the carriers themselves time and again.

Mr. Field.

1529. Is there any authority over the river, in which you are interested—who is responsible for the condition it is in at the present time?—As far as I know, the County Council are responsible for the trackway, but I believe the river is an open waterway.

1530. Apparently the river is a kind of "No man's land," if you could apply the phrase to a river?—It is the land of the carrying people at the present time. No one interferes with them.

1531. Is there no statutory or local authority who is charged with the responsibility of seeing that the river is kept in order?—Not that I am aware of.

1532. So it is really no man's job?—No. And we want to make it someone's job.

1533. How long have you known the river?—I have known it for forty years.

1534. Has it improved or disimproved during that period?—Do you mean the river or the traffic?

1535. I mean both. Of course, if the river is disimproved the traffic is disimproved?—The river is normal, but the traffic has disimproved owing to the fact that horse haulage has become a thing of the past.

1536. You are not in a position to say what the cost of improving the river would be?—I cannot say that.

Mr. J. E. GRUBB, J.P., Carrick-on-Suir, called in; and Examined.

Chairman.

Chairman—continued.

1536. We shall be glad to hear any evidence you have to give us, Mr. Grubb—I am sorry I have not got any evidence written out as I have been working for the King a good many recent days, so you will excuse my imperfections, but I will write it out afterwards and send it to you or to your Secretary if you desire. I don't want to bring you back into ancient history, but I might mention the fact that we are indebted to Henry VIII. for the first Act that I have been able to trace dealing with the navigation of the Suir. He included in the Act the Barrow and the Nore. It is as much a Fishing Act as a Navigation Act, and he gave certain rights on the river which are still exercised. In fact, if it were not for that Act there would be no navigation rights.

1537. To whom were these rights given?—To who ever used the river—to all the users, to the public, except where a castle or an orchard existed at the time of the passing of the Act. The Act gives the right to haul a boat to Clonmel except where a castle or an orchard existed on the side of the river. I now come to the Royal Commission on Canals, before which I gave evidence. In that Report there is a full statement of what the traffic then was. The Commissioners recommended the expending of £14,000 on the river between Clonmel and Carrick. Subsequent to that Royal Commission steps were taken locally, and the Agricultural Department sent their engineers, who, in conjunction with Mr. B. A. Hackett, the County Surveyor, made a survey of the river from Clonmel to Carrick, and prepared plans and specifications which are now showing what the river needed. They recommended a partial canalisation because they thought a full canalisation would come to a sum of money larger than what the Royal Commission recommended, which was £14,000. Then came the question as to how this work was to be carried out. You will remember that when the Rosslare Railway was in contemplation and out of the £25,000 mortgage which existed on the old Bangor, Waterford and Lismore Line the Treasury agreed that certain sums should be applied to Ireland,

and £15,000 was allocated to the County Waterford. Out of that £15,000, £5,000 was earmarked for Suir improvements and a further sum for the Blackwater. That £5,000 was available towards the carrying out of the improvement recommended by the Royal Commission. In the Parliamentary Session of 1913 a Bill was introduced by Mr. James John O'Shea, M.P. for West Waterford, enabling County Councils in Ireland to execute the river improvements. That Bill was not carried through until 1914. In fact, it became law only after the war was declared. It is the law of the land now, and County Councils enjoy the privilege which I believe they do not in England—of carrying out improvements in navigation, even including the compulsory acquisition of land. Needless to tell you the war prevented the necessary capital being obtained, and the Treasury still hold, so far as the River Suir is concerned, £5,000. That can would not now do half the work it was contemplated it would do at that time. From Clonmel to Carrick there are fourteen English miles of water, and the fall between the two places is no less than 50 feet. Needless to say that would require to be locked. The present mode of conveyance is the same as it was in Henry VIII's time, except that they used then men and women and horses, but now only horses. It is a case of horses dragging wooden boats up that 50 feet in fourteen stable miles. There is no mechanical traction whatever, and having regard to the cost of horses the present system is the most expensive system of doing the work. Canalisation of the river is the only means of effectively dealing with this matter. I represent here today the Urban Council of Carrick-on-Suir and the River Suir Navigation Company, and the Suir Steam Navigation Company. I would ask you to differentiate between the Suir Steam Navigation Company, which is a private concern of which I was the owner, but which I sold out to Messrs. Thomas Walsh and Sons, of Carrick-on-Suir, and the River Suir Navigation Company. Mr. Walsh trades between Waterford and Clonmel, and it is a perfectly free navigation. Any-

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Mr. GRUBB, J.E.

[Continued.]

Chairman—continued.

one may trade on it. A question had been asked with regard to the control of the river. There is no control of the river as there is of the sea, except in as far as the Great Jury, now the County Council, under an Act of William IV., are enabled to expend money for its deepening, but only to the extent of £300 for one work, and only on the condition that the applicant provides £100 out of the £300. The County Tipperary Grand Jury and County Council have exercised that power on more than one occasion at Carrick, Kilsheelan, and perhaps elsewhere. They are bound to maintain the trackway. And in proportion as that trackway is kept in good order the transport of goods upward is facilitated, and when that trackway is allowed to fall into a bad state of repair traffic is impeded. The River Suir Navigation Company was established in 1836 by Act of Parliament. They exercise powers, under their private Act of Parliament, between Waterford and Carrick—from Grassby Ferry, west of Waterford, to the old bridge at Carrick, and no further. They take tolls—a penny per ton on all sea-going craft travelling within their limits. They have of late expended all their receipts on the improvement of the navigation, or solely all. Their receipts are very small, because the sea-going craft are very few. What is wanted is to enable sea-going craft of 500 tons burden to go up to the quay at Carrick, which is the very western limit. Crafts of 300 tons can come up at spring tide at present.

1532. Do you know the draught of the water?—We want 15 feet of water. We have at high tides 11 feet, but we want 15 feet. There is one reef of rocks on the river at Carrick, part of which was removed for the son of Sir James, Duke of Ormonde, in Queen Elizabeth's time. He hoped to bring her to his house at Carrick. Her effigy is there. This work was commenced by William Archer, the Duke's engineer at the time, but he did not finish it. We want to complete it and remove that bar of limestone rock. It will possibly cost £5,000. There is nothing else to prevent craft of 500 tons coming to Carrick Quay. These rocks stopped gunboats and small ships of war coming up at a time when they were making a row at Carrick, and on September 15th, 1848, when a gentleman named William Smith O'Brien was in the neighbourhood, they tried to frighten the people of Carrick by firing cannons. Again, when we had people called "Fenians" knocking about, a gunboat was sent up, but when it came in sight of Carrick it went away again. We want these rocks removed.

Mr. Field.

1533. If you had another row there, would you not have these rocks blasted?—I cannot say. I am not a prophet. It would be a great advantage to the trade of Carrick if we could get sea-going steamers to come to the quay. There is land close to the river available for industries, and very valuable industries could be started there, but we are at a loss by not being able to bring up sea-going vessels. There are very few vessels now under 500 tons. The river is indeed a lobby with me. I have a love and affection for where I traded for fifty years, so I want to give the best evidence I can in regard to it.

Chairman.

1540. Under the present Act, the County Council take charge of the river, make the necessary improvements and charge sufficient toll to pay the interest and sinking fund?—Mr. O'Shea is here and he will explain that Act—the Act of 1914. There was a titled Irish lady who introduced both the House of Lords and the House of Commons in the passing of that Bill. It provided for the improvement of the navigation of rivers, the taking of tolls, the acquisition of land, the borrowing of money, the appointment of officers, the appointment of a County Council Committee to see to the execution of the work, joint action as would be necessary in those cases between two counties, and it also conferred other powers.

1541. Do you consider that the County Council could take control of the river and get sufficient revenue from the tolls to pay interest on the sinking fund and to maintain the navigation?—I am quite certain that the traffic on the river would not bear a toll sufficient to pay the interest on the sinking fund and the cost of

Chairman—continued.

maintaining the navigation. I believe, however, that the tolls would be sufficient for the maintenance of the navigation, but not sufficient to pay interest on the cost of the work.

1542. Is there any estimate as to what the cost would be?—There is one of £16,500 by the Royal Commission on Canals, and a subsequent estimate for £7,000 for a very partial canalisation. With regard to the carrying capacity of boats between Clonmel and Carrick, the barges leaving Clonmel carry up to 35 tons, but leaving for Clonmel from Carrick they never carry more than 24 or 25 tons. Two barges are hauled by one set of horses from Carrick to Clonmel. From Clonmel they come on the current and do the 50 feet in a rush when the river is in flood.

1543. Do you know the amount of stuff in 1918 shipped from Clonmel?—No. I was not then in business. Mr. Henderson can tell you the amount of traffic down the river and up the river.

Mr. Hennessy.

1544. I regard you as a very important witness indeed. You have been 50 years in business in Carrick and Clonmel?—I was born in August 1848 near the Scar, and I was in business when I was 15 years of age, and I quit business in 1912.

1545. You have an intimate knowledge of the resources of the district?—I think I know nearly as much as anyone.

1546. You regard the river as an important factor in the development of the district. First of all you think the port of Waterford should be developed?—Yes.

1547. And that the river should be developed from Carrick to Clonmel?—Yes. If the navigation is wiped out the railway rates, which are very favourable to Clonmel, would probably become unfavourable.

1548. Do you think that a definite economic improvement would follow in the district if a large and generous scheme of river improvement were carried out?—I do. It might be slow, but it would be sure to come about.

1549. Let us take the Local Government bodies in the neighbourhood of the river—the County and District Councils and bodies like the Chamber of Commerce?—There is no Chamber of Commerce except the enlightened one we have in Waterford.

1550. You have no such body in Clonmel?—No.

1551. Have these public bodies been giving thought to the development of the river since the Report of the Royal Commission on Canals was published?—The Waterford County Council have been giving attention to it. They warmly supported the scheme of the Royal Commission. The Tipperary County Council were neutral. The attention with regard to Tipperary County Council is that Clonmel is governed by a Corporation, and is excluded from the County Council authority, because the Corporation is the Authority within the Borough of Clonmel. In the Borough the keenest interest is taken in the river and its possibilities. When you go outside Clonmel there are a few County Councillors who see the advantage the river would be to the district. Those who live but 20 or 30 miles away see but little of the river and are not well informed on the question of its advantage to the County generally. It is, of course, of more advantage to them than they are aware of, because they get more for their produce on account of having the navigation to Clonmel.

1552. There has been no organised action between the two County Councils of Waterford and Tipperary to urge that effect be given to the recommendations of the Canal Commission?—No. There was a meeting called between the local authorities interested in 1913. I was not at the meeting and I don't know what occurred. Before the County Council could do any work whatever an Act of Parliament should be passed to enable them to do so, and that Act was not passed until 1914. When the war came on and they could not get the money. I don't say for a moment that the Tipperary County Council is antagonistic. It may be lukewarm for want of information.

1553. Do you think that the development of inland waterways would react on the prosperity of the country?—Yes. It would keep railway rates cheaper and ensure better prices for produce, because it would lessen the cost of transit.

1553. You

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Mr. GRUBB, J.P.

[Continued]

Mr. Lindsay.

1553. You spoke of the Tipperary County Council?—Yes.

1554. Are not three two County Councils in Tipperary?—There are. I was in the South Tipperary County Council for twelve years and chairman for three years.

1555. Regarding the sum of £14,000 which was recommended by the Canal Commission, to whom was it to be given?—I think the two County Councils were to share and they were to raise the difference between the Government grant of £5,000 and the estimated cost of £14,000.

1556. Of course, at that time the council had no statutory powers in reference to matters of that kind?—No, they had not. I recall a statement I have made. At the time I am speaking of the £14,000 scheme recommended by the Royal Commission on Canals was not before the public, as the Report of the Commission was not published until 1911. It was in connection with the £7,000 scheme that the difference between the Government grant of £5,000 and the total estimate of £7,000 was to be raised by the two County Councils.

1557. To whom was the £14,000 to be given?—To the County Councils to do the whole work.

1558. Jointly?—Yes.

1559. You spoke of the portion between Waterford and Carrick?—Yes.

1560. These scagging vessels pay toll?—Yes.

1561. Ordinary lighters pay nothing?—No.

1562. Is it always possible to distinguish between the two crafts?—Yes. The barge never goes to sea. The nearest approach to that was two motor barges

Mr. Lindsay—continued.

which belonged to Messrs. Dowley and Sons, whom I also represent here. They go to the sea—to Dunmore for fish.

1563. They don't go from Dunmore to Carrick?—No. Because Waterford is where they ship the fish across the channel.

Mr. Field.

1564. Do I understand that the Agricultural Department made inquiry and were in favour of giving you a loan?—I don't think they got as far as that. We asked for a grant.

1565. Did they recommend a grant?—I think I have a letter from the Department, and that there was one holding out a promise of a grant.

1566. Is it your view that you want a grant of £14,000 to carry out the improvement?—£14,000 now would not do as much as in 1906. Therefore a larger sum will be required. There is only £5,000 towards the cost, and as regards the remainder of the money, I don't think it would be possible to raise it locally. I think there should be a Government grant towards some of the work, not towards maintenance.

1567. Would the local authorities give some financial help if a grant were given?—Yes, I think they would, because for years they have been giving a grant. They have been maintaining the towrope. That is in the nature of a grant for the navigation.

1568. If you were considering this portion of the river, how many locks would be on it?—I am not an engineer. There is a 50-ft. fall in the river between Clonmel and Carrick.

Mr. JAMES PHILLAN (Messrs. W. Phelan and Sons, Boat Owners and Traders on the Bar between Waterford and Clonmel), called in; and Examined.

Chairman.

1569. You can tell us something about the condition of the navigation on the Suir?—Yes, sir. We were trading on the river up to 1914. We had nine or ten boats working. We traded between Clonmel and Waterford. We did not trade between Carrick and Waterford at all. We were done on 30 years trading with boats on the river, but we had to give up in 1914. The traffic was not paying. Between floods and low water stoppages and currents we could not keep on horses. I gave evidence before the Royal Commission on Canals in 1905. I don't think I can add anything to that evidence except to say that since 1914 we have given up trading on the river.

1570. You did not use motor boats?—No.

1571. Is it possible to use them?—I don't think so. The river in summer times goes as low as 12 inches, and when the water is lowest the current is strongest. That is in a good many places, not in all the places.

1572. How many shallow places are there?—A good many. But there are a few places where the water is deep and strong. I think there is a fall about 6 or 7 feet at this place and the current is very strong. At no time could you work with less than 12 horses for a 40-ton load.

Mr. Field.

1573. Twelve horses?—Yes. On one boat.

Chairman.

1574. That is going up?—Yes.

1575. You come down with the current?—Yes.

1576. Have you formed any opinion about canalising?—Canalising was the only scheme that I thought would be feasible to carry on the trade.

1577. Did I understand you to say that your business was between Clonmel and Waterford?—Yes.

1578. You had nothing to do with Carrick at all?—No.

1579. How did you manage about lightening the boats?—The boats used to come up to Carrick to be lightened for Clonmel. We could send from Clonmel around by Bagnalstown, but it would mean transhipping on the Grand Canal.

1580. Have you gone out of the trading on the river altogether?—Yes, sir.

1581. Do you mean to say that it took 12 horses to bring up one barge?—It would take 12 horses to bring a 40-ton load.

1582. Could you not adopt motor power instead of horses?—Of course, I know it was not a practical

Chairman—continued.

problem nine or ten years ago, but don't you think it could be done now?—No. There is no depth in it and the current is too rapid for a motor boat.

1583. Your opinion is that on account of the condition of the river that the business you had been carrying on could not be done now and made pay?—It could not.

1584. Are you of opinion that if a large expense was undertaken in connection with the canalisation of the river that that expense would be justified by the increase of trade that would follow?—I think so.

1585. You think it would be a business proposition to expend this money?—I think so.

Colonel Grotten.

1586. When you gave up trading in 1914 were goods still offering to come by your barges?—Yes.

1587. You had business to do?—Yes, we had plenty of goods to carry—coal and corn, flour, timber and butter.

1588. General traffic?—Yes.

1589. As a user of the river what depth of water would you require?—I think you would want a minimum of about 3 feet of water, at its lowest. It is an important matter that the traffic by canal or river should be regular.

1590. Do you recollect how your rates compare with the railway rates?—The railway rates to Clonmel are very low in comparison with other places.

1591. Are the railway rates higher or lower?—When we gave up trading the railway rates were lower and they are lower at present, but there were extra charges, such as cartage, which increased the rate. At the present time the railway rate is lower than the river rate.

1592. What reason have you for thinking the traffic would be resumed and be of sufficient bulk to be economic?—The river at present is not able to take the traffic they have. There is a congestion.

Mr. Honan.

1593. If the river were properly canalised, would not the cost of cartage be less than it was in 1915 when you gave up?—Of course it would.

Mr. Grotten.] The Grand Canal Company from Dublin and that direction reach the quay at Carrick at present, and there is a moderate amount of traffic. They are stopped at Carrick for want of canalisation, and are not able to go any farther.

Mr.

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Mr. HENDERSON.

[Continued.]

Mr. H. R. HENDERSON, Manager at Clonmel of the Saur Steam Navigation Company, called in; and Examined.

Chairman.

Chairman—continued.

1594. I understand you are the Clonmel manager of the Saur Steam Navigation Company?—Yes, sir. We are the only Company operating between Clonmel and Carrick. I have been connected with the river for twenty-six years. I can hardly add anything to the evidence already given to you by Mr. Grubb, except to deal with more recent facts. There are increasing difficulties in the way of carrying on trade on the river. During the last six or seven years, or since the Report of the Royal Commission on Canals was published, the state of the river has rapidly deteriorated. The shoals have increased, and we have had a greater number of floods, so that the interference with the traffic to Clonmel has been greater than for a good many years before. There has been absolutely nothing done to the bed of the river within the past five or six years. It seems to be nobody's business to look after it, except, perhaps, the carrying companies, and we had the expense of carrying on our business so large that we have nothing to spend on the river bed and the tow-paths. The tow-paths have also deteriorated, and this means far greater wear and tear on the horses and ropes and other things employed in hauling the boats. As far as the future is concerned, I think some special attention to the river is absolutely necessary in the interests of the town of Clonmel. Speaking as a trader myself, I say the river is an absolute necessity. The railway has not been able to cope with our surplus traffic. We have found great difficulty in getting wagons at Waterford for traffic that we could not send by boat. If the river was closed for navigation the congestion on the railway would be far greater. I feel confident that unless some scheme for the improvement of the waterway is carried out within the next few years the river navigation must come to a close. I don't believe it will be worth anyone's while to continue on the river unless the cost of navigation is considerably decreased. Wages have gone up considerably, and, under present conditions, there is no prospect at all before trading companies. As regards the tonnage carried by the river, that, of course, has been reduced since Messrs. Phelan and other traders gave up their business. So far as the business I am concerned in—cars and coal—the tonnage has actually increased. We have been employed to our full capacity. We have carried all the tonnage that the water facilities would allow. Of course, we have been constantly stopped by flood and impeded by low water and shoals, but, so far as our service was concerned, we carried all we could on the river. On the down river trade the traffic has almost doubled in recent years. This is due to the development in agriculture, and, more recently still, in connection with timber. I feel sure that if an improvement was made in the river it would enable us in Clonmel to work cheaper and to further considerably increase our trade. The question of tolls has been mentioned here to-day. I feel that the tolls could not be borne by the boat-owners, as, owing to railway competition, boat-owners could not get advances in their rates for freight to compensate them for tolls. I may state that Clonmel is in a remarkably favorable position in regard to railway rates. I believe the railway rates from Waterford to Clonmel are probably the lowest in the whole of Ireland for the same amount of mileage. From Clonmel to Kilkenny—a matter of 31 miles—the minimum railway rate is about 5s. and from Waterford to Clonmel, the same amount of mileage, the minimum railway rate is 3s. That, of course, is due to the previous competition with the river. Under the Railway Act of 1890, the Great Southern and Western Railway Company were prohibited by law from increasing their rates on the Waterford-Limerick section, but now that the railways are controlled by the Government the conditions may change. The river traders will be faced with total extinction in the next few years unless something is done to improve the waterway.

1595. Can we have a statement showing what the traffic was up and down the river in 1913-14 and 1917?—Yes. The inward trade amounted to from 11,000 to 12,000 tons a year, and the outward tonnage was 3,000 or 4,000 tons less.

1596. In what year?—That would cover the past five or six years. K

to ten years. It has been almost the same tonnage right through.

1597. What has become of Messrs. Phelan's fleet?—They were sold. We bought two or three of the boats.

1598. Are they still running?—No; we are the only carriers at present working to Clonmel, but we are working boats bought of Phelan. There are other traders working between Waterford and Carrick.

1599. You have a smaller fleet to-day running to Clonmel than you had three or four years ago?—No. We have added to our fleet. The traffic to Clonmel has been reduced by about 5,000 or 6,000 a year since Messrs. Phelan withdrew their trade—I mean 5,000 or 6,000 tons.

1600. When you talk of 11,000 or 12,000 tons, that is what you carry?—Yes.

1601. Can we get a statement showing the entire trade carried to Clonmel in 1913?—I think we can get the figures.

Colonel Griffiths.

1602. Would there be any substantial reduction in the cost of carrying if your barges were able to carry full loads between Carrick and Clonmel?—There would be an immense saving in wages alone. Barges carrying 45 tons are hauled by tugs to Carrick. At Carrick the boat has to be lightened and 17 or 18 tons put into a special lighter for the journey to Clonmel. Two boats carrying about 40 tons are hauled by a team of 11 or 12 horses driven by four or five men. In dry seasons, with low water, we have to put on a third boat with two extra men, and still further reduce the total tonnage carried. If the river were canalized we should be able to haul 40 tons with one or two horses, so the saving would be very considerable, as a horse and a driver at present costs something in the neighborhood of 16s. a day. Boat-owners would be enabled to continue trading, and give a better service. Agricultural production in Clonmel district has doubled in recent years.

Mr. Hanson.

1603. I understand you to say that the agricultural production of the Clonmel district had nearly doubled in recent years?—I have not the figures, but I know that the production last year was rather more than double. I am speaking now in reference to the business of my firm. We are engaged in the corn business. Our business as corn merchants was more than doubled last year. I should say the agricultural produce delivered in Clonmel was considerably more than doubled last year.

1604. That is a very important fact. As a business man, did you make out the haulage per ton per mile from Waterford to Clonmel?—No; we never did that any previous year.

1605. Can you give the actual cost of haulage per ton per mile as between Waterford and Carrick and as between Carrick and Clonmel?—We could make it out approximately. The two sections are so overlapping in expense it would be hard to make it out, but I believe we can work it out approximately.

Mr. Lindsay.

1606. Mr. Grubb rather suggested that if the navigation had to be given up that it would be detrimental to Clonmel?—Undoubtedly.

1607. Because he said the railway rates would be increased?—There is that prospect, besides an unsatisfactory railway service.

Mr. FLEM.

1608. Is it your experience that under the existing condition of things that the railway is not able to carry, or at least conveniently carry, all the goods that are presented to them?—My experience is that the railway has not been able to meet a rush of traffic. Steamers have been held up, as goods could not be taken away in time by rail, thus incurring demurrage charges.

1609. How would the steamers come in?—Steamers come in to discharge at Waterford.

1610. Is it your opinion that any stoppage of this waterway system would be prejudicial not alone to yourselves

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Mr. HENDERSON.

[Continued.]

Mr. Field—continued

yourself in Clonmel, but also to the cultivators and producers?—Yes, most decidedly. It would be almost disastrous to the town of Clonmel if the waterway were closed. The traffic to Clonmel is about 25,000 tons per annum up and down. That would probably be disabled if the river were improved and the cost of navigation would be lessened. We have traffic offered to us that would double our tonnage, but we are not able to take it.

1612. How does your export trade compare with your import trade?—For the past two or three years they are almost level. That would be due to the development of agriculture, and to the increase in the amount of timber exported. There has been a very large increase in the quantity of timber exported in the last three or four years.

1613. Would the export of timber account for the increase largely?—To a large extent. The export of timber from Clonmel, Kilsheelan, and Carrick has been almost doubled during the war.

1614. This could not be carried as easily by the train as by road?—Timber shippers seem to prefer the

Mr. Field—continued

river. They have special facilities for storing on the quays at Clonmel, Kilsheelan and Carrick, and there is less handling and less cost.

1615. The same applies to other articles?—Yes.

1616. Not alone in your own personal interests, but in the interests of the community do you think it would be a judicious thing if this waterway were closed up?—Decidedly.

1617. Are you of opinion that if the existing agency is allowed to continue that eventually this waterway will be almost useless?—I should say so. If the Sun Steam Navigation Co. were purely a carrying company it would have ceased to exist, but the proprietors, Messrs. Thomas Walsh and Sons, of Carrick, are also large traders in corn and coal and have an interest in the firm of Messrs. John Grubb and Sons, Clonmel, also millers, corn and coal merchants, and it is almost a matter of necessity for them to carry on the river business. If it had not been for their other business I think that they would have given up the river business as Mr. Proust did.

Mr. THOMAS MURPHY, Managing Director, Clonmel Brewery, called on; and Examined.

Chairman.

* 1618. You wish to give us some evidence?—Yes. I represent one of the leading concerns in Clonmel, and I assure you that we find the river, so far as it is able to serve us, very convenient. It would be disastrous to the traders of Clonmel if the river traffic should cease. Clonmel is a very old town, and has a great number of warehouses on the river bank, and it is therefore a great convenience for us to get our stuff by water. The railway station is much farther from the town than the river. There is the cost of cartage on goods coming by rail.

1619. Do you think if the river were improved that the trade of Clonmel would increase?—Undoubtedly.

Mr. J. J. O'SHEE, M.P. for West Waterford, called on; and Examined.

Chairman.

1623. You wish to give some evidence, Mr. O'Shee?—I am anxious to direct the attention of the Committee to the rivers Blackwater and Bride. I think the Bill has been very fully dealt with already. The position in regard to the Blackwater and the Bride is different from the position in regard to the Suir. In the Blackwater it is a question of dredging. There are 8 or 9 shoals between Youghal and Cappoquin which require to be dredged, and an estimate made in 1908 by the County Surveyor of the County showed that the cost of dredging would be £4,000 and that maintenance would not be a very considerable item. As regards the river Bride it is very important so far as traffic is concerned. It serves the Tallow district in the eastern part of the county Cork, and it is a natural canal. There is no necessity for locks or canalisation, because it is in its essence a natural canal, and there is a very considerable traffic in agricultural produce.

Mr. Field

1624. Where?—Even and to the sea. Vessels are very often detained at Cappoquin in consequence of the shoals. The result is that the traffic has diminished, because when a sailing vessel reaches Cappoquin it is detained sometimes for several days. The Bride runs into the Blackwater about 20 miles up from Youghal. The depth of the Bride is very considerable. It comes from the direction of Mallow. Tallow is the head of the navigation of the Bride, and it has always been a great centre of the corn trade and, in consequence of the increase of Millage, it is more important than formerly that the navigation of the Bride should be improved. There is an estimate of £1,000 by the County Surveyor for the enlargement of the weir bridge of the Bride to 50 feet. He estimated that £1,000 more would be sufficient for dredging and £500 for the extension of the quays, making a total of £6,500. That added to the Blackwater improvement made £6,500, and the Treasury in 1912 agreed to provide £6,000, and that out of that fund that Mr. Grubb referred to which was a sum of £105,000 which was repaid by the Great Southern and Western Railway Co. to the

Mr. Field—continued

Treasury. The Treasury hold this money in trust for local purposes. They applied £26,000 to the building of a bridge here in Waterford. A sum of £35,000 remained, and they agreed to grant £5,000 for the improvement of the Blackwater and Bride, £5,000 for the Suir, and £4,000 for the Strand Wall at Tramore. The work in connection with the improvement of these rivers could not be undertaken because we had no authority. I got the Rivers Navigation Act passed in Parliament in 1904. It was only then we had authority to spend this £5,000 on the Suir, because the Act enabled us to set up a joint committee of the County Waterford and Tipperary to deal with the Suir and a single Committee of the County Council of Waterford to deal with the Blackwater and Bride.

1625. Did that Committee ever meet?—It was never set up because as the war broke out we were told we could not get the money then.

Mr. Keating

1626. The money is still available?—It is earmarked—£5,000 for the Suir and £5,000 for the Blackwater and Bride. We have the plans made by Mr. Duff. Three members of the Royal Commission in 1908 inspected the Blackwater and the Bride—Sir John Griffith, Mr. Waldron, and Mr. Minch—and they made a report on the subject.

Chairman.

1627. Would you tell us something about the trade on the Blackwater and the Bride?—The trade on the Bride is heavier than the trade on the Blackwater up to Cappoquin.

1628. What draft of water have you got at Blackwater?—The depth of water where the Bride enters the Blackwater is at least 24 feet at the lowest point. It is only from that point up to Cappoquin that the shoals exist in the Blackwater river. It is a small proposition to deal with these two rivers.

1629. Do

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Mr. O'SHEE.

[Continued.]

Mr. Hanson.

1622 Do you agree with the statement made by other witnesses that the agricultural production in the agricultural districts in the South of Ireland has been doctored?—Oh yes, more than that I think in the last two or three years. One of the great drawbacks in [Glenageary] is that the timber has been held up on the quays. It is piled up in places where it was never placed before, because of the low water during the summer. If they got water enough they would be able to take it away soon, and I hope they will. It is a great inconvenience to me because it is opposite to my office.

1623 Has the conveyance of heavy traffic on the Blackwater as far as Cappoquin increased?—No, it has diminished. The shoals have been increasing.

1624 The improvement of transport facilities on the Berke, would that in your opinion encourage increased production around the Tallow district?—Yes. It is a most important district.

Mr. Lindsay.

1625 Was Cappoquin always the terminus of the navigation on the Blackwater?—No. The Duke of Devonshire constructed a canal at Lismore.

Mr. Lindsay—continued.

1626 Is it possible for a boat to go to Lismore?—Yes, but it is not used.

1627 As regard the Berke, was there any authority over that river?—No, that was the difficulty we had.

1628 Was there ever an authority at any time?—No. The Trough Harbour Commissioners have control over a certain distance of the Blackwater. I do not know what the precise distance is.

1629 Was not there a short canal at Mallow at one time?—I cannot give evidence as to that.

Mr. Field.

1630 Is it not a fact that there used to be a small steamer for tourist purposes to Cappoquin?—Yes. That has ceased. The Royal Commissioners went up in 1910.

1631 Did they get stranded?—No.

This concluded the evidence.

Chairman.] On behalf of the Sub-Committee, I beg to thank all the gentlemen who have so kindly come here to give us information to-day.

The Sitting then concluded.

SEVENTH PUBLIC SITTING: SATURDAY, 14TH SEPTEMBER, 1918.

At the CITY HALL, COBK, at 10 a.m.

MEMBERS PRESENT

Colonel John Greston, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. P. J. Hanson
Mr. PHILIP MacNEILTY, Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR

Before the proceedings commenced,

Lord Mayor of Cork (Councillor Butterfield) said:—Before the regular proceedings begin, I wish to tender to the Committee a cordial welcome to the City of Cork, with the fervent hope that their short stay may be pleasant as well as instructive. It will, I am sure, be pleasing news to all present to know that the Chairman of the Committee, Sir Arthur Shirley Benn, is a Cork man, having been born in Douglas, and as such he is doubly welcome here to-day. I only desire to add that I trust the visit of the Committee to our City may be fruitful of good results to the City and to the Port of Cork.

Chairman.] I desire to thank you, my Lord Mayor, on behalf of my colleagues and myself, for the cordial welcome you have so kindly extended to us. I assure you we realise the great importance of Cork, and the fact that it has got one of the most magnificent harbours in the whole Empire. We fully realise that we have in Cork very few suggestions for Cork, because Cork has shown it is well able to take care of its own affairs.

Mr. J. L. FAWCETT, Secretary Cork Industrial Development Association, called in; and Examined.

Chairman.

1632 You are Secretary of the Cork Industrial Development Association?—I am, sir.

1633 And I understand you desire to make a statement to us on behalf of your Association?—Yes. We observe that the Terms of your Reference are—(1) To investigate and report upon the facilities for transport offered by the ports and estuaries of Ireland; (2) to make suggestions for their equipment and development; and (3) to visit such places as may be considered necessary for this purpose. Dealing first with the Third Term of Reference, we desire to thank you, on behalf of the Cork Industrial Development Association and the citizens generally, for including a visit to the city and

Chairman—continued.

But we wish to know about it, so as to report on it to our Main Committee, and that if good can be done that it may be done. As you may be aware, on the 8th August last a Select Committee was appointed by Parliament for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and co-ordination, and to ensure that such developments and improvements shall be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and estuaries of Ireland, to make suggestions for their equipment and development, and to visit such places as they may consider necessary for the purpose. We shall be glad now to hear any evidence you wish to offer us, under our Terms of Reference, in connection with Cork.

Chairman—continued.

port of Cork in your minority, and for affording to Cork interests the opportunity to place before you local views as to the transport facilities and requirements of the district. We have every expectation that as a direct result of your visit and of your investigation, you will become impressed with the many natural and, in some respects, unique advantages that Cork Harbour enjoys, and its practically unlimited potentialities for shipping and trade expansion generally between this and outside countries in the future. Dealing with the First Term of your Reference we wish to say that there is no canal system in this county. Your inquiry, therefore, so far as the district is concerned, will centre

solely

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MR. FAWSITT.

[Continued.]

Chairman—continued.

solely upon the port of Cork and its facilities for the transport of goods, both inland and seawards. And here we wish to direct your attention to the Monthly Bulletin of the Association for February of the present year, in which is briefly set out data concerning (1) the situation of Cork Harbour, (2) its facilities for shipping, (3) the character of the trade and commerce that passes through our gateways, and (4) the advantages which it offers for the successful conduct of international trade, with regard particularly to the period of intensified commercial competition to follow the close of the war. We have already handed in copies of this publication for the information of your members. We have observed from the press that much evidence has been laid before you as to the desirability of developing one of our western harbours for transatlantic shipping. It is unquestioned that Ireland is most advantageously situated for such development, being the most westerly country of Europe and the nearest in point of proximity to North America. This country would, therefore, appear to be the natural terminus in northern Europe for transatlantic shipping. The shipping problem has become serious owing to the destruction of tonnage, and whilst the war continues such destruction is certain to proceed, perhaps, in a greatly aggravated form. The need for shortening and quickening sea voyages will become more and more pressing, and, indeed, cannot fail to be a potent factor in the competition for the world's markets after the war. Hence it would seem desirable that advantage should be taken of Ireland's situation, to shorten and quicken sea journeys between the New and Old Worlds, and so enable vessels to make more passages in a given time than is possible under existing or even pre-war arrangements. In this connection we desire to press the claims of Cork Harbour for consideration and recognition. For very many years before the war it was the North Atlantic Mail Port, and, as such, served the commerce of those countries with the American world far more expeditiously than is possible under the altered arrangements. In pre-war days our port accounted for two-thirds of the foreign shipping using Irish ports—a fact which speaks volumes for its popularity with shippers. It is served by railways with sidings along the deep-water quays both at Queenstown and Cork, and is connected with the trunk lines of the country. In speediness and security for shipping it stands pre-eminent among west-European ports. Some of the largest ships afloat at the outbreak of war availed regularly of its safe anchorages, entering and leaving at low water spring tides with the greatest facility. In addition to the Admiralty Dockyards at Harlowine, the ship-repairing yards at Passage and Rushbrooke, now owned by Messrs. Furness, Withy and Co., Ltd., a firm eminent in international shipping, are being reconstructed and re-equipped so that vessels up to 620 ft. in length and of 80 ft. in width, and drawing 34 ft. aft can be drydocked with expedition and efficiency. The coming of other large international interests to Cork, notably Messrs. Henry Ford and Son, of America, will attract shipping and commerce to our port, and to an extent not yet fully realised by our people. In the period of transshipment after the war, Cork, being a large ship port, would appear to be admirably suited to play an important part in the future of shipping in these countries. These, we respectfully submit, are factors worthy of serious consideration by the responsible authorities, and which ought not to be overlooked when a decision is being reached on this question of a transatlantic port in Ireland. We would here, and particularly as other harbours on the west coast of Ireland have been brought to your attention, suggest to your Committee that Bantry Bay, and especially Berhaven, should be included in your programme of harbours to be visited in the south of Ireland. Berhaven is capable of very considerable development, and, provided it be linked up with the main trunk line of railway, say, at Malin Junction, it would play an important part in the commercial future of the country.

Coming now to the facilities proper of Cork port for the handling of cargo and the transport of goods, we would point out that the present equipment of the port is, in our opinion, inadequate and unsatisfactory. And we say this without in any way wishing to dis-

Chairman—continued.

parage the efforts put forward by the Cork Harbour Commissioners in past years—efforts which were made without any kind of encouragement being forthcoming from what calls itself the State in these countries. For the quick, cheap, and efficient loading and discharging of vessels the port and harbour require the aid of modern powerful machinery, fixed and movable. Under the conditions to obtain after the war, and when the important industrial concern now being established on our river banks are in full working order, it will be imperative that such machinery and equipment will be provided, otherwise our port will become a byword with industrial and commercial firms and with shippers. Larger and more powerful cranes are necessary on our quays for the handling of heavy and bulky cargoes, and to encourage shipbuilding in our midst. Machinery for the proper discharge of grain and coal loads is essential for cheap food for our people and cheap power for our producers. The expansion of the trade of the city will call for additional wharfrage and storage accommodation. The Harbour Board, we have learned, intend re-claiming silt-land on the north bank of the river and outside the city's bounds. This is a step in the right direction, and it is to be hoped that the work will be carried through with expedition. Immediately fronting this land, on the south bank, lies what is locally known as the Marina, portion of which has become the property of the Messrs. Ford, and, as a consequence, the remainder of this frontage, reaching to Blackrock, has become enhanced in value for industrial and shipping purposes. Already more than one offer for this land for industrial purposes has been before the Corporation. This land, fronting as it does some forty acres of public property, at present leased to the Agricultural Closures Committee, constitutes the only city land contiguous to deep water immediately available for industrial purposes. We suggest that this Marina frontage be converted into public quays, and that the river bed alongside be dredged to at least thirty feet L.W.O.S.T. And this brings us to another consideration. The water available for shipping at our quaysides varies in depths to thirty feet. We believe that a uniform depth ought to prevail, and especially that the main approach from the harbour to the city quaysides should be dredged to a depth that would enable ships drawing 34 ft. aft to berth alongside our quays. It is fairly certain to assume that ships will grow in length and in depth, as well as in speed, after the war. Modern harbour engineers everywhere, with this in mind, are framing harbour developments to keep abreast of the times, and are deepening harbours and waterways on an average to 40 ft. When we succeed in attracting large vessels to our port, we must endeavour to retain the good will of the owner, and this we can only do by entering adequately for all sizes and descriptions of vessels and for the quick handling of cargo, etc. To undertake the port and harbour development outlined herein would be beyond the financial capability of our Harbour Commissioners, especially under war conditions, and, if undertaken by them, could only result in port charges having of necessity to be increased, and to an extent that would not only drive shipping from our quaysides, but would depress our external trade. We respectfully suggest, and because we consider the harbours of a country to be assets of national importance, that the State should come to the aid of port authorities in this respect, and should make available, if not by direct grants in aid, then at least possible cost the capital required to undertake the most necessary work of port maintenance and development.

Dealing next with our railways as port feeders and transportation agencies. The most important railway service of the south and west is that of the Great Southern and Western Railway, which serves Queenstown and Cork, and generally the north bank of our harbour and river. This artery is connected with the Cork and Brandon and the Cork and Macroom lines, with terminals on the south side of the city. There are railway sidings on some of our quays, principally Parnose Quay and Victoria Quay. These sidings are good, so far as they go, but not sufficiently extended, and at points require to be double ended. The Ford works on the Marina present the extension to the east of

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[Continued.]

Chairs—continued.

at the wharves on Victoria Quay. This is a serious check to the development of the Marina frontage. The over city line running in the same direction to Black rock is the Cork and Falloway Railway, with terminus at Greenhaven, at the entrance to Cork Harbour, where there are important railway installations. This railway crosses the southern bank of our river and approaches. It runs through a strong industrial district, viz., the town of Passage, in which are situated the dockyards owned by the Farness, Wylie Company, and to which reference has been already made. As the docks expand this district will grow in importance, and from this aspect, as well as from the agricultural considerations of the country it serves, this railway is of special importance to the future of Cork. Its chief disabilities are that it is a converted narrow gauge line, and not connected, as are the other city railways, with the Great Southern and Western Railway service. For industrial purposes and to hasten the due development of the south bank of our river and harbour, this railway will require to be widened in gauge, and to be linked up with the trunk lines of the country. At present, contraband, bulk has to be broken at Cork, live stock have to be driven on foot, and goods carried across the city, either to the ships or other railway lines, at considerable loss of time and money and general inconvenience, so far as the transport of commerce is concerned. But this is a subject which may not be within your reference to report upon—if it is, we respectfully urge upon you, in the general interest of the commerce of the city and port and of the whole South of Ireland, to give this railway line, in view of its immense possibilities, your most careful consideration. Before passing from this point as regards railways, we wish to direct the attention of your Sub-Committee to the state of congestion which continually prevails at the goods depot of the Great Southern and Western Railway. No doubt, at the present moment that congestion is aggravated by a recent stoppage of work on our quaysides and by existing war conditions. But we refer not only to the abridgement of waggons, which is growing in seriousness each day, but we wish to lay particular emphasis on the lack of suitable and adequate equipment at the goods station for handling heavy freight. There is, we are informed, but one hand crane of rather small power at the Cork Goods Depot, and it is a fixed machine. It is the only one available for both loading and unloading. You can, therefore, readily understand the inconvenience and delay which seriously arises at the Central Goods Depot, and which seriously interferes with the free and quick handling of the important freights passing to and from Cork Station. This is a matter which calls for urgent remedy at the hands of the Government, who now control our railways, and who are responsible and properly concerned for the quick transport of merchandise over our railways.

There is one additional point we wish to lay particular stress upon, and that is the loss and injury sustained by traders owing to the congestion of goods for Cork at certain English ports, notably those of Liverpool and Fishguard. This congestion is the result, in our opinion, of the unscientific manner in which shipping was handled in past years, whereby foreign goods, say from America, intended for Cork producers and distributors, pass by the Port of Cork and are taken on to Liverpool. There the ship discharges and the goods are transhipped to Cork, entailing loss in extra freight, in loading, unloading, dock dues, etc., but worst of all delay at Liverpool. The position of affairs at the Docks in Liverpool, we are informed, for the last six years has been one of increasing congestion. The position, so far as Cork is concerned, is most unsatisfactory, and a deterrent to trade and commerce generally throughout the South of Ireland. With the striking of Cork cross-channel steamers the congestion has become greatly accentuated. Goods are held up, incurring dock rent, demurrage charges, loss for waiting, etc. In the general interests of trade apart from the particular interests of Cork, the opening of ports which would relieve Liverpool is to be desired. It is to be sincerely hoped that, as a result of your investigations, the port facilities of Ireland, and especially to those offered, under such advantageous conditions to shipping by the Port of Cork will be availed of to the full hereafter, and that goods from abroad intended for this country will

Chairs—continued.

no longer be carried past our gate heads, but will be discharged within the portals of the first shipping port in Ireland—Cork Harbour, located on the world's most crowded highway of ocean-borne commerce.

Before concluding, we wish to refer publicly to another aspect of railway for ports such as Cork. The fishing industry in this country suffers from constant neglect, and as a consequence our poor people are deprived of a cheap but highly nutritious food of fish. The great bulk of the fish at present consumed in this country comes to us from British fishing ports. It seems to us that Cork Harbour is admirably situated to be the home base of a large fleet of trawlers, equipped with all modern appliances. Facilities for the handling, curing and packing of the fish on a large scale should be provided at Queenstown, from which it could be distributed quickly to the different markets. The fisheries at Youghal, Ballycotton and Kinsale are in a lamentable condition, due mainly to antiquated boats and gear, and to the lack of proper transit facilities for the fish at the landing-places in such centres. Kinsale, particularly, requires the extension of the railway to the pier—a request which the people of that district have repeatedly put forward for attention, but, so far, without result. Ballymore, on our western shoreline, is now the principal fishing port of the South of Ireland. A large and socially conducted fishery school exists there, and the railway has very recently been extended on to the pier. The fishermen have, with the aid of the Congested Districts Board, been enabled to procure motor-boats and up-to-date tackle. There are, however, two matters requiring attention at Ballymore: first, shedding is badly needed on the pier, to enable the handling, curing, and packing operations to be conducted under proper conditions. Secondly, the industry needs the provision of an ice-making plant to ensure that, in the summer season, no edible fish will be lost for human consumption. At present ice has to be brought from as far distant as Belfast, and, of course, a loss and inconvenience to fish buyers and there have been numerous complaints on which large catches of fish have not been wholly forwarded to market owing to this drawback.

Finally, we venture to express the hope that your visit to the South of Ireland will not prove fruitless and barren of result, as so many previous Governmental inquiries in this country have proved to be, but that, on the contrary, the authorities may avail themselves of the results of your researches to put forward exceptional efforts to stimulate and expand industry and commerce in this country.

1640. That is a most interesting statement you have given us—it is rather general in its scope, but it will be supplemented by other evidence.

1641. Is your Association very large?—It is of considerable local and national importance. We are the first Association of the kind in Ireland. We have been of considerable utility in getting firms, such as Ford, to come to Cork, and we do our best to advertise Cork abroad through the means of a monthly bulletin. We act in the capacity of a Bureau of Commerce in foreign countries. Our Association is maintained by voluntary contributions from the public. We have the good will of the entire community.

1642. I gather that Cork is one of the greatest distributing points in the South of Ireland?—Yes. It serves not only the whole of Munster, but serves towns very far inland, owing to its admirable railway facilities.

1643. You refer in your statement to goods coming in here being taken to Liverpool and brought back?—Yes. Practically all the American goods that reach us come to us through England.

1644. That is due to what?—Primarily to lack of organisation on our own part, and it is also due to the disinclination of English shipping companies to cater for Irish trade.

1645. Is it not also due to getting cheaper freights in large boats, and that you have not got a market here to take very big consignments?—Possibly there is something in that. We have been large importers of food-stuffs—of flour and grain and American bacon and articles of that description.

1646. You have had large imports of American bacon?—We have.

1647. Can

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[Continued]

(Chairman—continued)

1647. Can you tell me the length of time that a steamer loses by coming here—the extra distance she has to go?—I think the answer to that would come better from the expert of the Harbour Board.

Mr. Hanson.

1648. How long has the Development Association been in existence?—Since 1903.

1649. It gives attention to questions of transport as well as to questions of internal development?—Yes.

1650. During its existence there has been a marked development in Irish production?—Yes, down to the opening of the war.

1651. Since the opening of the war agricultural production has increased?—Yes, but it has been confined to agricultural production.

1652. That affects the prosperity of the country as a whole?—Yes. The surplus of the agricultural produce is exported. Our efforts have been more directly connected with the development of manufacturing industries, though we assist sympathetically and endeavour to develop rural activity.

1653. Urban and rural development march side by side, and both depend upon the efficiency of transport?—Absolutely.

1654. And your opinion is that if the port were improved as suggested that it would react favourably to both in the South of Ireland?—Yes.

1655. Is it a fact that generally throughout Ireland there is a much greater interest in industrial development during the past eight or 10 years than there was previously?—Yes.

1656. Would you say that what might be called the industrial spirit is being developed in Ireland?—We have evidence of that in our files in our office, and every manufacturer's and producer's books will show that there is a marked improvement during the last 10 or 15 years.

1657. I am putting this question because if it is made clear to us that a vigorous industrial effort is being put forth in Ireland, it would argue for the improvement of all means of transport?—So long as we are on the question of industrial development that we have registered a national trademark. We have been the first country in the world to do this, and our example has since been copied. America has a Bull brand Congress for the same purpose. The trademark protects the home market, for the home producer, and it enables the consumer to recognise readily native made goods.

1658. That is no move to me, but some of my colleagues may perhaps like to hear it.

Mr. Field.

1659. With regard to the harbour facilities, do you think you have a sufficient number of cranes for loading and unloading vessels?—The present equipment at the port is inadequate and unsatisfactory.

1660. Have you any idea of how the revenue is collected here?—I would rather you put that question to the harbour officials.

1661. About the railway sidings, are they sufficient?—No. They certainly are not at all adequate in view of the developments which are taking place.

1662. Is it your experience that the Great Southern and Western Railway have not adequate facilities at the present time to deal with the goods traffic that come, say, from here to Dublin or to different parts of the country?—My information, which has been derived from men engaged in commerce in this city, is that the Cork terminals suffer from two disabilities—a shortage of waggons, and the lack of elevating cranes for loading and unloading vessels.

1663. Is there only one hand crane in the enormous terminals?—That is our information. You want to put a wagon unloaded and you have to wait until the

Mr. Field—continued.

crane is ready, and when you are about to start probably there is a Government order to be attended to, and you have to wait until the crane is again free.

1664. With regard to your suggestion respecting fishing, is it your opinion that Cork ought to be made a large centre for steam trawlers?—Yes.

1665. So that we might create a sort of second Grimsby, and be allowed to trawle the fish of our own waters instead of going elsewhere?—Yes. Cork port should be made the headquarters of a steam trawling fleet.

1666. That would enable you to help Youghall, Ballinacorney, and Kinsale?—Yes, provided these harbours are given the necessary rail facilities.

1667. Are there no railway facilities to Youghall?—Yes, but the station is practically a mile away from where the fish are landed, and Ballinacorney is even more situated—the nearest railway would be Midleton. In Kinsale the railway terminus is built on the top of a hill.

1668. You would want an aeroplane to get at it?—Almost.

Lord Mayor. Fish taken in the southern waters go across to England and come back again to Cork.

Mr. Field.

1669. Have you any knowledge, Mr. Fawcett, of the volume of imports as compared with exports?—In our Monthly Bulletin*, which we have handed in, you will see a statement of the average annual imports and exports for a period of five years. They are as follows:

IMPORTS.		EXPORTS.	
	Per		Per
Coal	413,375	Cattle, pigs and sheep	153,016
Malta	97,315	Horses, ponies and asses	2,336
Wheat	60,940	Timber	25,175
Feeding stuffs, cattle food, etc.	21,008	Butter, lard, margarine, condensed milk and cream	18,108
Sugar	15,769	Oats	17,220
Flour	15,193	Dressed meat	9,990
Cement	14,927	Berries and burnt ore	7,677
Phosphate rock	12,532	Eggs and poultry	6,166
Bone slag	6,386	Fish (all kinds)	3,134
Superphosphate	4,168	Feathers, hair, hides, skins and wool	2,336

1670. What is the ratio of exports and imports?—The reason I ask you that question is, if a big vessel came in would you be able to give them loading to go out?—Under the new conditions which have arisen I think we could. It should be noted that the Lord people have come to produce trawlers, not only for Ireland and Great Britain, but for continental use also, so that we will be able to provide cargoes in future.

1671. Is it your opinion, as Secretary of the Development Association that by increasing the facility of transport and having a moderate cost for transportation, not only will the agricultural but the industrial production of the country be increased, but of course you must have harbour accommodation?—Given proper transport facilities our trade would increase enormously. As a Cork man I may be prejudiced, but Cork, in my opinion, is the first port in the world, and I have seen a good many.

Mr. Hanson.

1672. I congratulate you on your extremely able statement?—Thank you.

*Monthly Bulletin of the Cork Industrial Development Association for February, 1918 (Vol. 1, No. 2)

Mr. JAMES PRICE, M.Inst.C.E., M.Inst.M.E., Engineer to Cork Harbour Commissioners, called in; and Examined.

Chairman.

Chairman—continued.

1673. You are a harbour engineer, Mr. Price?—Yes, Sir.

1674. We shall be glad if you give us some evidence in reference to the port?—During the last twenty years

the Cork Harbour Commissioners have carried out the following improvements with their own funds: 1. Deepening the channel to 17 ft. under Admiralty datum from near Passage to Cork, making the port not tidal

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Mr. PRICE.

[Continued.]

Chairman—continued.

non-tidal with respect to cross-channel steamers. 8. Converting old shallow quays by reconstruction and new wharves into deep water quays, thus doubling the accommodation for coastwise trade. 3. Adopting a railway scheme for connecting the railways north and south of the city with sidings to the quays and extending these quay sidings as found desirable. 4. Installing a complete system of lighted buoys from Roche's Point to Cork, so that the river is easily navigated by day or night. 5. Dredging the western side of the Atlantic liner anchorage at Queenstown so as to make a width of 2,000 ft., available for the largest Atlantic liner. This work was completed in 1913.

1675 These are improvements that have already been carried out by the Harbour Commissioners?—Yes, during the past twenty years. A further extension of the scheme was approved of in accordance with Mr. Meek's Report (a copy of which will be handed in). Before the war this scheme was started and plant provided, the expenditure being about £4,000. This work was suspended owing to the war. We have a very fine dredging plant.

1676 That is the property of the Harbour Commissioners?—Yes. This scheme provided for the increase of the width of the liner anchorage up to 2,000 ft. of deep water, and dredging of the Turbot Bank to improve the curves of the western entrance channel so as to give a depth in this channel of 48 ft. low water. The present eastern channel has a depth of 30 ft. These works were suspended owing to the war. The Board of Trade sanction has just been granted to a scheme of reclamation of about 156 acres of silt-land between Tivoli and Dunkettle Railway stations. The objects of this reclamation are: 1. To save the heavy expense of conveying dredged material to sea. 2. To provide a large area of land for port improvement in deep water quays with railway accommodation, and ground for shipbuilding and industrial purposes requiring a water frontage. The complete scheme would provide for 5,000 ft. of deep water quays, with turning room for vessels 700 ft. long, and leave about 100 acres for shipbuilding and industrial purposes. The Board have also, since the war, approved of a scheme for providing grain-discharging machinery, to increase the rate of discharge of vessels at Cork quays. As to the cost of the various proposed improvements. With reference to the Lower Harbour improvement, Mr. Meek's estimate was £22,300—of this about £4,000 was expended on plant and dredging, leaving £18,000 for future expenditure; but as this estimate was made at pre-war prices, the probable cost of completing the works would be approximately £ Lower Harbour improvements, £30,000; Tivoli quays, 5,000 ft. at £43, £200,000; discharging machinery, £20,000; total, £250,000. Obviously the Board in the present state of the money market, could not obtain this money by borrowing even with Parliamentary sanction. To carry out the works by small instalments from surplus revenue would take many years and delay the national benefits from large port improvements in the South of Ireland. If such a delay is to be avoided substantial financial assistance would be necessary. If it could be ascertained what was the nature of the ship-building programme now in progress, the particular works most necessary could be selected and provision made for carrying them out without unreasonable delay. For instance, if large Atlantic liners, such as the "Mauretania," with direct drying turbines, are to be used and require to call at Cork Harbour, the Lower Harbour scheme should be proceeded with. On the other hand, if 30,000-ton liners with geared turbines are to be used the carrying out of this scheme may not be necessary. For Tivoli quays the money will depend on the nature of tramp steamers. If their length exceeds 430 ft., or draft exceeds 25 ft., the scheme should be taken in hand at once. The provision of discharging machinery will, no doubt, be urgent in any case.

1677 We know that the idea among ship people is that boats are going to be built bigger?—Our scheme would provide for vessels up to 1,000 feet.

1678 What is the date of Mr. Meek's report?—25th November, 1913. The deepening of the channel to 17 feet makes it all right for cross-channel steamers. The larger vessels, up to 25 feet draft, naturally will

Chairman—continued.

have to wait for tides, but so far we have no complaint. We can take vessels up to 10,000 tons of cargo capacity.

1679 With 25 feet draft?—Yes. We had one 25 feet draft recently.

Mr. FIELD.

1680 To whom does the land belong that your board propose to acquire in connection with the scheme of reclamation between Tivoli and Don-Kettle Railway Station?—That is Crown land, and they have approved of the scheme, and the draft conveyance is with us now for the Harbour Board to buy the whole of that land.

1681 Are they going to charge you something for it?—Yes, £1,500.

Chairman.

1682-3. What railway accommodation have you?—The idea is that we get a siding from Tivoli. This would get over one of the difficulties of the Great Southern and Western Railway Company's want of facilities in the yard, which is too confined. The Railway Company are in favour of this scheme. We can make a new yard altogether. The idea is that part of this would be allocated to timber, and the timber merchants are prepared to take large areas. There would be any amount of accommodation.

1684 I presume this is something that would be self-enslaving if you got that land and reclamation?—Yes. In the first instance it will save us over £3,000 on our coal bill. That is a substantial item. If the big ships come we must have those deep-water quays which will give us turning room for vessels 700 feet long.

1685 At present you have difficulty in getting material?—Yes. We have it handy, if we could only get materials, another extension of sidings along Anderson's Quays.

1686 What depth of water have you got off Passage to the west?—There are depths of 50 feet, but the limiting place is the bar below Queenstown, where it is 30 feet. If there was a necessity that could be removed quite easily. There would be no difficulty in that.

Colonel GRETTON.

1687 In reference to this scheme of reclamation at Tivoli, what is the distance from Cork?—About two miles. The idea is to have about one mile for quays and the rest available for shipping ground. If necessary it could be all quays.

1688 About the entering of large vessels into the Harbour of Cork; is there any time when they cannot come in?—They come in at all times. The "Mauretania" and the "Laurentia" came in, and they were notoriously bad ships to handle.

1689 In your opinion large vessels would be able to make the port in any state of the weather?—Yes. About the transhipping of goods from a large ocean steamer into a smaller steamer to distribute in Ireland or England, the Commissioners only charge on the tonnage put out of the ships.

1690 What is the revenue the Commissioners derive?—It is from ships and from imports and exports.

1691 What class of traffic do the cross-channel boats carry?—Live stock and farm produce to England and general merchandise back.

1692 In your experience are the facilities for that traffic sufficient in regard to handling and so forth?—The Packet Company would like to express the method of getting across the street to get goods right into the store. They had a scheme for doing that, but it was held up by the war.

1693 Do you provide cranes?—We have had cranes of 20 tons, 10 tons, 5 tons, and 3 tons, but the machinery is not what it ought to be on the quays.

Mr. MANSON.

1694 Do we understand that your board has a surplus revenue, and is prepared to spend it in the development of the port?—We had a surplus revenue, but the war conditions have affected us. We believe that owing to the developments that will take place after the war we will have funds to go with small improvements. Without assistance, however, we cannot do big things.

1695. Was

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Mr. PRICE.

[Continued.]

Mr. Hanson—continued.

1695 Was the revenue tending to increase?—Yes, it was steadily going up for years. Of course, there were fluctuations.

1696 Do you know of any reason why the trade is not likely to improve after the war?—I think it will be greater, particularly the export trade.

1697 You think that will increase?—Yes, and it will mean an increase in the import trade.

1698 Can you answer for the finances of the port?—I know something about them.

1699 Is the chairman or secretary to give evidence?—No, they are both in London.

1700 Perhaps you would be able to give us sufficient information?—We have a little table made out and shall give it to you.

1701 Are the estimates you have given, amounting to £280,000, based on present-day prices?—Yes. The two important figures are the small ones—lower harbour improvements, £50,000, and discharging machinery, £20,000. They are the more urgent.

1702 So you need not expend the quarter of a million all at once?—No.

1703 You have not yet applied to Parliament for borrowing powers?—We have a certain amount of borrowing powers, about £40,000, left, but for this scheme, which it involves railway connections and sidings, I am advised that we require parliamentary sanction.

1704 With regard to the development of the port from the State point of view, what is your scheme?—Mr. Meek's estimate made on pre-war prices was £20,000, but the probable cost of completing the work will be £30,000. We did ask the Government, through the Admiralty, for help in regard to the lower harbour improvement, and they told us that the Royal Navy men could get in with any ship they liked, and that they did not see why they should help. We would like help in regard to that scheme, and also in reference to the machinery, because there will be a difficulty in financing them if you go in for much machinery. The Tivoli scheme is progressive—that is the quay construction. The filling in of the land is a matter that can go on without trouble. Our dredging plant would take about 10 acres a year, and would take about fifteen years to complete that work.

1705 Any recommendation that we could make would be on behalf of a scheme on national grounds?—Yes.

1706 Do you think on national grounds that the expenditure of a quarter of a million of money on your port, extending over 15 years or the greater part of it, is a sound proposition?—If the size of ships increase, as it is likely to do, the improvements we have in view would be very important from a national point of view. If the tonnage steamer is to be under 10,000 tons, we can do all that is wanted, but if we are to have steamers of 25,000 tons cargo, we want to go on. The railway sidings are decidedly imperfect. The trains have to cross these bridges, which adds to the expense, but if our scheme was carried out you would have an ample area to do anything you liked.

1707 You would like the Government to help?—Yes.

1708 What kind of help have you in view—a grant of money or facilities for loans?—So long as we get the coin, I do not care how it comes—if we could get a grant on condition of conveying out certain work, or facilities for borrowing. Our Acts limit our borrowing powers to 4 per cent. We could not get money at that now. So long as I get money I am satisfied.

Mr. Lindsay.

1709 On what basis did the Board of Trade arrive at the sum of £1,200 which they are charging you for this land?—On the basis of other bays we got. We bought 5½ acres, and they said that the same figure should apply to the proposed land.

1710 Is the land really worth anything?—We thought we ought to get it cheaper.

Mr. Lindsay.] It is not a very large sum, but I do not like the idea of a Government Department doing anything.

Mr. Field.] They do it often in this country.

Mr. Lindsay.

1711-12. If the port had been left in its natural state could the Admiralty ships still come in as they do now, with equal facility?—I think so.

1713 They use your lights?—Yes, and do not pay anything for them.

1714 You have a complete system of leading lights?—Yes.

1715 They pay you no dues of any kind?—We had a claim against them for £60,000, and so far we have only got £20,000.

1716 Do you mean to say that in pre-war times they paid nothing in the way of harbour dues?—They paid something. They paid dues on the ship and something on the coal. It is a small thing.

Mr. Field.

1717 How do you derive your revenue? Have you town dues and shipping rates?—It is a moderate rate on the goods and export rates and rates on the ship.

1718 How does that balance—about half and half?—Nearly half and half.

1719 You have adopted the system that obtains in all the big ports?—Yes. I took out the percentage on different ports, and I find that we are about the average.

1720 With regard to the facilities you have, do you consider at the present time that your mechanical apparatus for loading and unloading ships is sufficient and equal to the demands made on you in a first class harbour like Cork?—No.

1721 What expenditure would be necessary?—My first scheme was for £3,000 for discharging gran.

1722 Roughly speaking, about how much could you safely expend with the chance of getting it back by increased trade?—The amount I have put down is £50,000.

1723 The utility of a port depends to a considerable extent on the facilities provided for the loading and unloading of ships?—Yes. Cork was remarkable for making a very rapid discharge.

1724 What is the biggest crane you have?—Forty tons.

1725 You have no 100-ton crane?—No.

1726 What is your opinion about Cork harbour as a transatlantic port?—It is certainly the best harbour in the United Kingdom, and there is no difficulty about trans-shipping.

1727 Do you consider that it is a harbour that would meet the requirements of transatlantic traffic?—Certainly.

[Chairman.] Everyone knows what Cork is as a harbour.

Everyone knows what Cork is as a harbour.

Mr. Field.

1727a. Have you any shipbuilding in Cork?—The Passage Docks are now building ships. They did build a few small vessels.

1728. With regard to your reclamation scheme, how much money would you require for immediate wants?—I think if we were to get £10,000 a year for four or five years it would put us in a position to make accommodation for big ships.

1729. Would that be your main proposition—that we recommend that you would get a certain sum of money to carry out this scheme which would enable you to provide the facilities necessary?—Yes.

1730. You have the space available in the city for the purpose of enabling the railway facilities to be so extended as to meet the growing wants of Cork?—Yes, the reclamation scheme is a very important matter. If we had money for the Tivoli scheme we would naturally put up facilities. We would also put up facilities on the quays.

1731. Do you mean by converting the old shallow quay?—That is all done. It is included in the work that the Commissioners have carried out during the last twenty years.

1732. What about the accommodation for the live stock trade?—That is provided for by the Clyde Company and the Steam Packet Company.

1733. Is it in your opinion efficient and satisfactory?—I have never heard any complaints.

1734. Is

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Mr. PRICE.

[Continued.]

Mr. Lindsay.

1754. Is it suggested that the great Southern and Western Railway Company could help in any way in connection with this Third scheme?—We might get it to help so far as laying the sidings is concerned.

Captain G. UNGER, R.N., Harbour Master at Queenstown, called in; and Examined.

Chairman.

1755. You are harbour master at Queenstown?—Yes, sir.

1756. Have you any evidence that you would like to give us?—I desire to associate myself with all that Mr. Price has said. He covered everything that I wished to say in reference to the port. The only thing I would like to add is in reference to the quays at Queenstown. There is practically only one quay under the Harbour Commissioners. The Admiralty use the pier without paying for it. When Lord St. Davids came here he agreed that more quays were required, and I thought he would recommend the Government to build another quay.

1757. Nothing has been done?—No. Queenstown has been used by transatlantic ships and by men-of-war.

1758. Has there ever been a suggestion made to have a deep-water quay at Queenstown where ocean liners could come in?—There was some suggestion many years ago.

1759. You have taken a great interest in getting the transatlantic steamers to come to Queenstown?—Yes.

1760. Can you tell the Committee how many more liners a steamer would have to travel if the voyage was from Liverpool to New York and the vessel stopped at Queenstown? What would be the extra length in knots?—In the case of a ship from Liverpool to New York calling at Queenstown there is no loss of distance. On proceeding from Plymouth to New York the loss of distance is between fifty-five and sixty miles.

1761. There is no extra distance to be travelled in the case of a ship going from Liverpool to New York by calling at Queenstown?—No.

1762. You would have no idea whether there would be any difficulty in having a deep-water quay for liners at Queenstown?—Absolutely none. Everything is suitable. There is possibly 2,000 feet of sloe-land where quays could be built.

Mr. Field.

1763. Are there any cranes at Queenstown?—A one-ton crane only.

1764. Your evidence is that Admiralty vessels and big liners from America come into Queenstown, but, of course, you don't deal with any of the cargo?—The English men-of-war don't use our quay at all. They do use it now during the war, but not in peace times. They have a dockyard at Haulbowline, and they generally use that.

1765. I take it that you hold that Queenstown is the most suitable harbour for American liners?—Yes, it is far the most suitable in Ireland. I know the harbours around the coast, and they are not so suitable, and the railway facilities are also inferior compared with Queenstown. We have absolutely unique facilities for communicating with all parts of Ireland and England. Any ship in the world could come into Queenstown and go out.

1766. Suppose these big vessels came here and made Queenstown a port of call; how long would that call detain them from the ordinary voyage? What extra time would it take—how many hours?—The transatlantic steamers, when they come in to land the mails, were sometimes under an hour.

1767. Would the state of the weather have anything to do with it?—Undoubtedly. They come into the harbour and then they are sheltered. Once they get into the harbour they are all right. I have known the mails to be handled in less than an hour.

Mr. S. MONTAGAN, Chairman Queenstown Urban Council, called in; and Examined.

Chairman.

1768. You have some evidence to give us, Mr. Montagan?—I desire to say only a few words. Queenstown is, of course, interested in the retention of the

Mr. Lindsay—continued.

1755. You would own the railways on your own property?—That would be a matter of arrangement as to maintenance and control. We get on very satisfactorily with the railway company at the present time.

Mr. Lindsay.

1749. Was it not the case as regards the outward trip that the liners were frequently detained for a considerable time on account of the trains being late? The trains did not always fit in with the steamer?—I don't know where the delay was.

1750. Whoever was to blame the steamer was delayed?—I am speaking of the boats going to New York?—We showed that all the manufacturing places in Great Britain were able to post their letters six hours later by sending their mails by Queenstown.

1751. My question was: Was it not a fact that, owing to the train service liners were held here for some hours on the outward trip?—Yes, that is true.

Mr. Hanson.

1752. Is it a fact that the quay accommodation at Queenstown is defective?—Yes.

1753. And that it is recognised by the local community?—Yes.

1754. Has any organised effort been made by the Queenstown people to have that defect remedied?—No, I think not. I see the chairman of the Queenstown Urban Council present, but I don't think any organised effort has been made to get another public quay. We have one public quay 600 feet long, but for any development of the port that is not sufficient.

Colonel Griffin.

1755. Has Queenstown increased or decreased in recent years?—Increased rapidly. The development of the dockyard and the development of Passage have made Queenstown. It has steadily gone ahead for some years past.

1756. There is reason why more accommodation should be provided?—I think so. The lack of housing accommodation has become an important matter. More houses are required. Haulbowline has greatly developed, and there are more men than there used to be.

1757. That is war development?—Even before the war they were rapidly increasing. Different committees of the Admiralty have reported that it was desirable to develop Haulbowline.

1758. In regard to the traffic, does the Queenstown traffic compete with the traffic of Cork?—No. At present the ships with grain and wheat all come to Cork. They don't stop at Queenstown except to anchor. They don't discharge at Queenstown.

1759. Why do some steamers go to Queenstown in preference to Cork?—They stop at Queenstown for anchorage. They don't discharge at Queenstown because there is no place to discharge. They cannot discharge a wheat ship at Queenstown.

1760. What class of ships use the quay?—Ships with troops, munitions, and stores for Haulbowline.

1761. With regard to fishing, has Queenstown at any time ever been a fishing port?—For many years. I issued a report to show that it might be an ideal place for fishing. There are large fishing grounds in the neighbourhood, and there are facilities for sending fish away by the railways and the steamers to Fishguard and elsewhere. We are able to deliver in the English markets the following morning. Any other place cannot do that.

1762. How does the port of Queenstown derive its revenue?—It is under the control of the Cork Harbour Commissioners. Any revenue collected at Queenstown goes to Cork.

Chairman—continued.

part as a transatlantic station, in the utilisation of the deep-water quay at Queenstown, and in the extension of railway communication to the agricultural districts and

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Mr. MOYNIHAN.

[Continued]

Chairman—continued.

and sea-board east of Queenstown. We have got full particulars as to the value of Queenstown as a transatlantic port. I would suggest that you call the Clerk of our Urban Council, Mr. Campbell.

1764. Have you ever considered the advisability of having a deep-water wharfage?—Yes.

1765. Has any effort ever been made in reference to it?—The matter is entirely in the hands of the Cork Harbour Board. All the revenue derived from Queenstown comes to Cork. All the administration in connection with the outer and inner harbour is done here.

Mr. JAMES H. CAMPBELL, J.P., Clerk of Queenstown Urban Council, called in; and Examined.

Chairman.

1768. You gave evidence before Lord Sydenham's Committee?—Yes, sir.

1769. Have you anything to add to that evidence? We need not ask you to waste your time by going over that evidence again, as we have it before us. If there is any other point not covered in that evidence we would be glad if you gave it to us—I would like to refer to the evidence given there, which is very important.

1770. We will put that evidence in. Are there any other points that you would like to deal with?—There are a few points that I would like to refer to in connection with Queenstown as a transatlantic port. We see no reason why Queenstown should not be utilised for the discharge of cargoes by liners. At the present time there is an antiquated system of carrying goods in existence. Goods from America intended for Ireland are first taken to Liverpool and then transferred at the docks into warehouses and transhipped into cross-channel steamers for Ireland. That system is, of course, unwise to all the business interests in Ireland because, in the first instance, it involves delay, and, in the second place, it adds considerably to the cost of American produce intended for Irish traders.

1771. Are you referring to the mail boats?—Yes, like small ones. They cross our harbour.

1772. Do you suggest that mail boats should stop here and deliver their goods and go on again?—Yes. I don't say that vessels of the class of the "Mauretania" should do that, but there are vessels that do not affect by any question of speed and that do not carry mails. They might come to Queenstown. At present I think there are some antiquated Customs arrangements in existence whereby steamers with cargo are not allowed to break bulk. I suggest that that should not be permitted to continue.

1773. You could discharge part of the cargo in places, but you could not expect the big liners to stop here with passengers on board. Has any effort been made to concentrate on cargoes?—There is no reason why an arrangement could not be arrived at to land part of a steamer's cargo at Queenstown and have the balance carried on to another port. Queenstown could be made a distributing centre for other parts of Ireland. The main line of the Great Southern and Western Railway runs to Queenstown, and merchandise could be sent from here all over Ireland. There is now a siding on to the deep-water quay, and there is no port in Ireland where the facilities are better for such a purpose. There would be no delay. Vessels at present come to Cork and discharge only part cargo. All that would be required would be for the Harbour Board to put up hydraulic cranes at Queenstown, and give these ships a clearance as quickly as possible. During the Boer War there were one hundred transports came alongside there. Large Caesar and White Star liners came alongside the quay at Queenstown and embarked troops for the Boer War. If at that time large vessels were able to come there, there is no reason why vessels of a smaller tonnage with cargoes should not come to the deep-water quay for the benefit not only of Cork and Queenstown, but of the whole of Ireland. I think I noticed that at the sitting of this Committee in Dublin some reference was made to Galway as a rival port to Queenstown. As one who has given some time to the consideration of the mail facilities afforded by the Queenstown route, I would like to say that I think it would be a great mistake to suppose that there could be any rivalry

Chairman—continued.

in Cork. Mr. Campbell will give you more detailed evidence.

Mr. HANSON.

1766. Do you say that the rates of Queenstown and the Urban Council of Queenstown are in no way relieved by any dues?—They are not. The rates on shipping all come to Cork.

Mr. FIELD.

1767. You have nothing to do with the dues on shipping?—No, they all come to the Cork Harbour Commissioners.

Chairman—continued.

between Queenstown and Galway. I want to point out that there is no rivalry between the two ports. Galway is intended to serve Canadian interests, but Queenstown will always be the natural port for American mails and cargoes. We would be only too pleased to see Galway opened up as a port for Canadian traffic. In connection with the deep-water quay at Queenstown, we also think that the quay might be utilised for cross-channel traffic. The goods pass our doors and are carried to the city of Cork, and this involves delay and expense. I see no reason why the cross-channel vessels should not be discharged at Queenstown. They can get discharged at any stage of the tide. It might be arranged by the Queenstown traders to get goods and merchandise by these steamers once a fortnight or a month.

1774. That is a matter for the traders?—Yes. In connection with the development of Queenstown there is another matter that we also want to bring under your notice, and that is the question of the railway communication between Queenstown and Ballincotton. The fishing industry at Ballincotton might be developed and afford lucrative employment.

1775. What is the distance from Queenstown to Ballincotton?—Fifteen miles.

1776. You have railway communication?—No, sir, we have not. In 1909 we tried to promote a Bill for the purpose of running a railway to Ballincotton.

1777. What is the population of Ballincotton?—It is small. It is mainly a fishing centre. It is mainly a residential district for health seekers in summer.

1778. Has any effort been made to provide a faster service?—Not from Queenstown. The idea was to link up Queenstown by getting a bridge across the river at East Ferry and connecting it with the important agricultural district east of Queenstown. We would then tap the town of Midleton and pass through Clonra and on to Ballincotton, which is a very important fishing district. Unfortunately the scheme did not go through owing to financial difficulties. I urge now, as you seem to be anxious to help the inland transport of Ireland, that you might see your way to ask the Government to give us a grant towards this important work, because it would be in the national interest. The fishing industry is very important, and at present Queenstown is cut off from it, and the fishermen cut off from the markets.

1779. Will you put in details about the railway in writing?—Yes. If you like I will put in as evidence the letter of the engineer at the time who recommended the scheme and pointed out the advantage that would be derived from the railway.

1780. Yes. You may hand in that letter.*—Thank you.

Mr. FIELD.

1781. Do I understand that your object is to have a partial unloading of vessels at Queenstown of any goods that are intended for this part of the country?—Yes, certainly. It is quite feasible.

1782. With regard to the cross-channel business, have you made any representations in any way to the cross-channel steamers or to the traders that this service should call at Queenstown?—Representations were made about fifty years ago, but Queenstown as a port was not then the place it is now. Trade at Queenstown is now considerable, but all goods come through Cork. The steamers pass Queenstown.

* Not received.

1783. Did

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MR. CAMPBELL.

[Continued.]

Mr. Field—continued.

1785. Did you ever hear that "a dumb priest never get a parish"—I did.

1786. You must ask or you won't get. Some statements were made with regard to the delay in the outward mails coming to the dislocation of railway traffic, and it was stated that the outward mails were delayed for hours. Have you any knowledge as to that particular fact?—I have, sir. I got an official return dealing with the question.

Mr. Lindsay.

1785. Is that in the Blue Book?—Probably it might be a reference only.

Mr. Field.

1786. I don't think it is. How often did this occur, Mr. Campbell?—I got from the Cunard Company particulars of the arrival of their mail steamers at Queenstown, and I also got particulars of the arrival of the mail trains, and I made a calculation of the average delay. In a great many instances the trains arrived before the liners came in. In some cases the steamers were awaiting the arrival of the mails for embarkation. The average delay was two hours and

Mr. Field—continued.

twenty-seven minutes in those cases, and not five or six hours, as our opponents asserted.

Mr. Lindsay.

1787. Is this in the Blue Book?—It is in my evidence before the Synodical Committee.

Colonel Gorton.

1788. What has the Urban Council of Queenstown done towards the development of the quays?—We have no resources or control over them. All the dues from the lower harbour go to the Cork Harbour Commissioners.

1789. What becomes of the dues on the goods landed at Queenstown?—None are landed. We complain of this. They will all go to Cork, even the dues on the goods intended for Queenstown.

1790. And these goods are brought back to Queenstown?—Yes, by rail, and at extra cost to the traders.

1791. The Urban Council has not been able to do anything?—Because we have no control over the harbour or quays.

Major GEORGE BERNARD O'CONNOR, J.P., representing the Cork Industrial Development Association, called in; and Examined.

Chairman.

1792. Do you wish to say something, Major O'Connor?—What I wanted to say was to supplement the evidence of Mr. PARSONS, the Secretary of our Industrial Development Association. I am a member of the Executive Committee of the Association. However, what I intended to say has been since absorbed in the course of the evidence that has been given. I should like to remark, in regard to our Secretary's evidence, that we wish to impress on your Committee that, having regard to the nature and origin of the imports and exports of the city, we don't think Cork occupies the position it should. We attribute that to the defective condition of the quays and to the archaic state of the railways in the city. In Cork

Chairman—continued.

there are five terminal stations, including the Great Southern. You can throw a stone almost from one railway station to another. That necessitates breaking cargoes.

1793. Has any effort been made to get the railways to have a joint station?—That, I believe, has been taking place; but there are officials who will be able to give you better evidence on that matter than I can. I believe that the Cork and Brandon and the Macroom Railways did run into the one station at one time. It does seem to us that it was an extremely anomalous state of affairs that there should be five distinct railway stations in a city of the size of Cork. Two of them are opposite to each other.

Mr. FRANCIS CUFFEY, representing the South of Ireland Cattle Traders' Association, called in; and Examined.

Chairman.

1794. You represent, Mr. Coffey, the South of Ireland Cattle Traders' Association?—Yes, sir. Our President should be here, but he is unable to be present, and I have been asked to answer any questions and to point out that the live-stock trade from Cork is not adequately catered for. Our exports from Cork have been decreasing year after year, and they have been very considerably less during the past ten years.

1795. To what do you attribute that?—There were two causes—the lack of shipping facilities and also with regard to detention at the other side.

1796. Is it that you cannot gather your cattle together here in Cork, or is it that you cannot get facilities for shipping?—The facilities are not favourable at Cork, and the expense is greater than by sending them by the Rosslare route. We have not the through bookings. The through bookings get priority over local bookings.

Mr. Henson.

1797. There are no through cattle rates from Cork?—Yes, but they are not general.

1798. Have you asked the Department of Agriculture to ask the Railway Commission to fix a through rate?—Yes, for twenty-five years. Mr. Field asked them twenty-five years ago. They sent over a Commission, and had the mileage gone into, and, at the time, did help us a little.

1799. Do I understand that the trade that ought to go through Cork is being diverted to other ports owing to the want of through rates?—Yes, the exports are getting less.

Mr. Field.

1800. From Cork?—Yes.

1801. Do I understand that you disagree with what was said by a witness here to-day, that the livestock trade from Cork was more satisfactory?—I do. I am quite satisfied that it is not satisfactory.

1802. Do you complain of the delay here in Cork in regard to the handling?—Yes.

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Mr. Field—continued.

1803. What sort of accommodation have you got?—The railway facilities for discharging the cargo when it arrives is very good, but for our outward trade it is bad. More facilities are wanted. We asked them to increase the pens, but the railway company say they are unable to do so owing to war conditions. However, before the war, when their attention was drawn to this matter, they did not attend to it.

1804. Do I understand that some of the Steam Packet Company have stood in the way of these through bookings?—I should say that our City of Cork Steam Packet Company must be the aggressor, if I may call it so.

1805. What has the South of Ireland Cattle Traders' Association been doing?—We have been dealing with them for a very considerable number of years without any result, and also the Chamber of Commerce had this question before them as many as fifteen years ago.

1806. Have you any suggestion to make to us as to how we should help you?—I should say that the Board of Trade ought to see to the carrying out of the law.

1807. How do the five railway stations disconnected in Cork affect the trade?—You cannot consider that we have more than three railways.

1808. Is the best accommodation good?—In pre-war times we had very reasonable accommodation except that it was not sufficient.

Colonel Gorton.

1809. Are you a cattle dealer?—I am a large exporter of cattle as well as a farmer.

1810. Do the farmers suffer any disadvantage by sending their cattle by the Rosslare and Fishguard route?—Well, they would. Wherever you have the quicker accommodation and the shorter time the animal is in transit the better for the farmer.

1811. In what way does Cork offer better advantage for transport than Rosslare?—I don't know that we offer

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MR. COFFEY.

[Continued]

Colonel Griffin—continued.

offer any more advantage except in the case of the malage in the country. We would have less malage of railway to Cork, say from Limerick Junction. The sea passage is not a great drawback.

MR. THOMAS FIFTHPATRICK, Ship Agent and Timber Exporter, called in; and Examined.

Chairman.

1833. You are a ship agent?—Yes, and a representative of three-fourths of the native timber exporters.

1834. You want to say something about the port facilities?—There are no facilities whatever provided by the Harbour Board for dealing with cargoes in the port. The result is that there is a great difficulty in getting some shipowners to use the port, and only for the compulsion exercised on them by the Director of Transportation I don't suppose we would have a steamer coming to Cork at all.

1835. Do you mean with general cargo?—With coal, grain, or ore. The Harbour Board, in their Bill of 1903, got power to borrow money for the construction of railway sidings, cranes, and gantries, but since then they have not made a move in the matter, nor are the public aware whether they have serious intention of doing so even after fifteen years.

1836. Do you know the reason why they have got done so?—One of the reasons is that the Labour Party, through a short-sighted policy, got it into their heads that machinery would do away with labour, instead of having the opposite effect.

1837. You have no cranes?—None provided by the Harbour Board. The Great Southern and Western Railway Company have four hydraulic cranes, but the delays are very heavy. In one case within the past fortnight a coal merchant had to pay £70 for demurrage. The accommodation for the export of native timber is altogether inadequate. There are only 500 feet of quay space allotted for it, and the Board have increased the dues by 50 per cent. There are no facilities provided for transshipping the stuff from the railway wagons to the ship. It has to be thrown out of the wagons and loaded into ship, like was done in Noah's Ark.

1838. There are 500 feet of space?—Yes, but there are only two berths.

1839. What space is there where the hydraulic cranes are erected?—About 600 feet.

1840. You have about 1,100 feet of wharf?—Yes.

1841. And half of that is occupied by the railway?—The wharf is about 1,400 feet long, but there are about 400 feet blank, about 600 feet occupied by the four railway cranes, and the balance is allotted to the export of native timber.

1842. Are these wharves owned by the Harbour Commissioners?—Yes.

1843. Where the railway cranes are, is that rented?—It is used for steamers having traffic over the Great Southern and Western system. On the south side of the river there is plenty of accommodation but no facilities for transshipping from the ship to the railway, or vice versa. There is no space for the use of home-grown timber.

1844. How is that handled?—The timber comes up by rail and the men throw it out. A couple of other men carry it on their shoulders to the quay, and it remains there until there is sufficient quantity for the steamer. The loading is unnecessarily prolonged. Owing to the want of facilities the trade is being diverted to other ports. During the last fortnight timber from Clare Castle has gone on to Limerick.

1845. What depth of water have you got?—About 18 feet at low water. It is ample.

1846. Your idea seems to be that there ought to be

Colonel Griffin—continued.

1812. Your evidence is given from the point of view of a large farmer who is also a cattle dealer in Cork?—Yes. The president of our association will send you in a detailed statement.*

Chairman—continued.

better facilities given here by the Harbour Board in Cork for the improvement of trade?—Not better facilities, but some facilities, for at present there are none.

MR. HANSEN.

1837. Do you seriously contend that the Harbour Commissioners have provided no facilities at all for dealing with traffic?—Absolutely none, except a few hand cranes, which cannot be used for ordinary purposes.

1838. That is a very sweeping allegation?—There are officials here, and they can challenge it, if it is not correct.

1839. You refer to labour troubles in the port about fifteen years ago in connection with the erection of machinery?—Yes. Local labour thought it was against their interests to have machinery provided.

1840. Do they think so still?—No, because they cannot now use the hand gear. Mr. Justice Dodd has put an end to that.

1841. Do you think it would be a considerable assist, since if the machinery and other facilities you suggest were provided?—Yes, because coal has been landed in Dublin for Cork merchants and sent by rail here and sent on to Skibbereen and Glenties in consequence of the objections of shipowners to send their ships to Cork.

1842. I think we ought to have some reply to the sweeping charge this witness has made against the Harbour Commissioners.

Chairman.

1833. It is on the record. You spoke, Mr. Fifthpatrick, of timber coming from Clare Castle?—Yes, going to Garston.

1834. You think a desirable route from Clare Castle to Garston was via Cork?—It has been sent that way.

1835. I think Limerick would be the natural way?—It has been sent by Cork.

MR. FIELD.

1836. Do I understand you to say that whatever facilities there are on the north side for loading and unloading, there are absolutely none on the south side?—Some whatever.

1837. And you adhere to what you have stated that in your opinion the fact that facilities are not being granted by the Cork Harbour Commissioners has prevented the development of the port?—Yes.

1838. Has it been your experience that that fact has operated injuriously on the port?—Certainly.

1839. Because if these facilities for ready loading and unloading were provided, ships would not desert the port?—That is so, and had it not been for the representations made by the Director of Shipping, you would practically have no ships coming to Cork at all except general cargo boats.

1840. Are you aware that a lot of coal has come by railway that should have come by ships?—Unfortunately I am.

1841. Have you ever put it before the Government or the Transportation Director, who would do the right thing, that you are using up coal in carrying cargoes to Cork by rail?—That has been done, and as a result of it he has compelled the ships to come to Cork.

MR. J. C. DOWDALL, Margarine Manufacturer, Cork, called in; and Examined.

Chairman.

1842. You have some evidence to give us, Mr. Dowdall?—I had not intended to give any evidence. I am a margarine manufacturer. It is an industry that has developed in Ireland in recent years. In normal times my firm would import from the United States about 50 tons a week, which passes Cork Harbour and goes to Liverpool. There are other firms here in a similar position. The stuff is landed in Liverpool.

* Statement not received.

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Mr DOWDALL.

[Continued]

Chairman—continued.

pool would be relieved and a good deal of tonnage released.

1843. Have you ever experienced any difficulty in getting port cargo sent to almost any port if you wanted it—have you not put your cargoes into steamers that have to call at two or three ports and discharge?—All our shipping is local. We have sent goods on the boat from Cork to Southampton and Plymouth and London and discharged some at each place. But I was referring to the goods which we got from the United States.

1844. From the United States you have hundreds of steamers that have two or three ports of call. If people in Cork wanted to get goods direct they would have little difficulty, if they got sufficient quantity together, to get steamer owners to discharge.—To a great extent we are in the hands of the owners in the United States. We only succeeded in doing what you suggest on one occasion when the head line came.

Mr JOSEPH O'SULLIVAN, Member of Cork Harbour Board, called in; and Examined.

Chairman.

1845. You are a member of the Cork Harbour Board, Mr O'Sullivan?—Yes, sir. But I am not going to speak of the good qualities of the Harbour Board, because I cannot be examined in my own defence. I want to say something in reference to the fisheries of Ireland. I am myself largely engaged in the cold-storage trade. As ice-making is a by-product of cold storage, and having the plant practically idle for three-fourths of the day, I came to the conclusion that I could add ice-making, and that it would be a very good thing for the fishing industry. I then visited ports like Skibbereen and Baltimore, and I found that they were getting all their ice from Belfast, and that that ice had to come to Dublin, and from Dublin to Cork, and was sent down to Skibbereen and Baltimore. It was planted on the quays at Baltimore, and when it got there you wondered what they wanted it for.

Mr. Field.

1846. It was half gone?—It was three-fourths gone. I then visited Drogheda. It is a great fishing place, and I found very often that these boats came in with loads of mackerel and were sent to sea again. I found the same in Galway and the same result.

Mr JOHN THOMAS JACO (Messrs. Earle and Co.), Representing Timber Merchants, Cork, called in; and Examined.

Chairman.

1853. Do you desire to give some evidence?—I just want to support, as far as I can, the steps which have been taken by the Harbour Commissioners in connection with the wharfage of timber. Previous to the war Cork merchants imported 2,000,000 cubic feet of timber. The space for discharging timber at the port is now entirely inadequate. The only place remaining is practically the public roadway. Timber takes up a lot of space, and requires to be sorted before being sent inland or yarded, and at present there is no place on the quay for discharging large cargoes of timber.

1854. You have got your own yards?—Yes, but you must first get the timber out of the ship on to the quay. We have plenty of storage of our own, but it is a question of getting quays where ships' cargoes can be discharged. I entirely support the project of the Harbour Board for the extension at Fresh.

1855. That would give you all the room you want?—Yes.

1856. And all you want is that the Harbour Board should get a grant?—Yes. There are a lot of trades dependent on the timber trade. There have been no imports for the past two years, and when they do come

Mr. Lindsay.

1846. Is your business confined to the South of Ireland, or do you go over the whole country?—We sold our goods principally in Great Britain before the war, but now our trade is almost exclusively confined to Ireland. We send all over Ireland.

Mr. Field.

1846. Could not your firm and other firms that import raw material arrange with a certain company to deliver your cargo in Cork?—That could be done at certain times of the year when manufacturers buy large quantities of nut and seed oils. We could arrange between three of us to nearly fill a small ship.

1847. It would be worth the while of a shipping company to deliver in Cork in that case?—Yes, but as I stated, we are largely in the hands of the owners, and it is difficult for us to dictate a route. We buy on c.i.f. terms, and very naturally the sellers in the United States avail of such freight rates and rates of insurance as are most suitable and cheapest to them.

Chairman.

1850. Our Sub-Committee has to deal with the question of transport?—My object is that there is absolutely no use in building enormous piers or extending railways without giving the people ice. At present there is absolutely no use building these "General John Began" piers, and when the stuff is got, throwing it back into the ocean. I intervened the Congested Districts Board, and pointed out to them that I was only a private individual, but that I was prepared to spend £10,000 on additional machinery if I had a guarantee, because if mackerel were pickled I would be affected. If you want to develop the fishery industry you must have an ice-making plant, and it must be put up in Cork, which is really the only distributing centre.

1851. Unfortunately, we cannot make any reference to this in our report?—The trade would grow.

Mr. Hoares.

1862. Your evidence is that an ice-making plant is a necessary part of the equipment of an Irish fishery port?—Yes, sir.

Mr JOHN THOMAS JACO (Messrs. Earle and Co.), Representing Timber Merchants, Cork, called in; and Examined.

Chairman—continued.

they will come with a rush. The Ford Co. has taken up the space that would otherwise be available.

1857. I imagine there won't be any big rush for some time to come?—That may be so.

Mr. Field.

1858. You think the proposed reclamation scheme of the Harbour Commissioners would remedy what you complain of?—Completely.

1859. Do I understand from you that the roads belong to the Corporation, and not to the Harbour Board?—That is so.

1860. Do the Corporation try to meet you in every way as regard to space?—Yes, but a day or two after a ship has been discharged you have prosecutions for obstructing the roadway.

1861. By the Corporation?—Yes. They are forced to take action, whether they like it or not.

Chairman. On behalf of the Sub-Committee, I beg to thank all the witnesses for the information they have given us. It will help us considerably in preparing our Report for the Main Committee.

(The Sitting Has concluded.)

EIGHTH PUBLIC SITTING: MONDAY, 10TH SEPTEMBER, 1918,

At VALENTIA RAILWAY STATION, at 10 a.m.

MEMBERS PRESENT:

Colonel John Grethen, M.P.

Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.

Mr. Walter Hudson, M.P.

Mr. Matthew Keating, M.P.

Mr. P. J. Hannon.

Mr. P. J. HANNON acted as Secretary.

Sir ARTHUR SHIRLEY BENN, M.P. IN THE CHAIR.

Chairman: We shall be glad to receive any evidence you have to give us in reference to Valentia Harbour and the transport facilities of the district.

Mr. W. L. MICKS, Congested Districts Board, called in; and Examined.

Mr. Micks made a general statement dealing with the conditions under which the fishing industry was conducted in south-west Kerry. He pointed out that the whole of the catches in the mountains were produced by open-boat fishing, whereas, in the spring, fishing is carried on by large decked boats fishing about fifteen miles out to sea. The Dingle boats participated in the industry, but did not operate on Sundays, so that the Sub-Committee did not see any on Monday morning, the 16th September. He submitted plans of the proposed extension of the pier, which, on the pre-war basis, was estimated to cost £10,000, but in his opinion, owing to the present cost of labour and materials the expenditure on the new plans would probably exceed £30,000. The County Council of Kerry had promised to contribute the largest amount which by law it is entitled to levy for any single marine work. That contribution could not exceed £15,000. The Congested Districts Board would also contribute a reasonable sum, and the Board considered that the G.R. and W. Railway Company ought also to give substantial assistance. He was quite confident that it was essential, in the interests of the development of the fishing industry and the whole region served by Valentia, that adequate pier accommodation should be provided. He asked the Sub-Committee to

recommend that the Government should provide from some public fund available, or which might be made available, a contribution equal to the difference between the pre-war estimate and the cost of harbour accommodation and railway extension as presented in the plans submitted by him. Some of the County Cork boats do fish in the waters around Valentia, and if the facilities were improved more boats from various centres would take part in the enlargement of the industry.

In answer to questions Mr. Micks stated that he was in favour of large schemes rather than smaller ones, but he made it clear that the smaller schemes, within their limits of utility, were decidedly advantageous to the local people. In his view the provision of sea-making plant in connection with the extension of harbour facilities at Valentia would have valuable results.

Mr. Micks, in expressing his view, based upon long experience of the fishing possibilities of the Irish coast, was strongly in favour of large and generous schemes for development at Valentia, which, in his judgment, would bring about an immense increase in the quantity of fish landed, and in providing that such fish should be forwarded to the British markets with the least possible delay.

Mr. ROBERT FLYNNMANN, Ballyard House, Tralee, Agent to Knight of Kerry, called in; and Examined.

Mr. Flynnmann endorsed Mr. Micks's statement, and called attention to the obvious drawbacks which existed in the landing, boxing, icing, and transport of fish. He declared that the inadequate facilities at the harbour prevented people from fishing, and that many men partly engaged in agriculture would devote their spare time to fishing if they were assured that opportunities would be afforded for landing and marketing fish. In his opinion more travellers from various parts would fish in Kerry waters only for the wretched conditions of the slip, which prevented any extension of private enterprise.

In answer to questions Mr. Flynnmann said he was

familiar with the conditions of the cattle industry on the island, and he knew that many farmers suffered loss owing to the absence of transport facilities to convey their stock to Cahirciveen fair, and the difficulties entailed in transporting building materials and other goods from the mainland were very great. The population of the island was about 2,000, embracing 350 families.

The witness handed in a report, dated 9th July, 1900, of Sir John Hawkshaw, C.E., on the capabilities of Valentia Harbour as a station for transatlantic packets and as a harbour of refuge.

Mr. P. J. O'SHEA, Chairman, Cahirciveen Rural District Council, and ex-officio member of Kerry County Council, called in; and Examined.

Mr. O'Shea urged that a substantial grant should be made for the development of Valentia Harbour in accordance with the plans submitted by Mr. Micks. He mentioned that the Kerry County Council had given the largest grant in their power in connection with the improvements to the harbour, and will increase that grant if possible. There were 100 "nobly" boats in the spring time anchored in the channel, but the difficulty was to discharge their fish into small boats and secure accommodation for

icing and transport. He stated that 50,000 boxes were forwarded in the half-year ended 31st July last. The value of these boxes was roughly £150,000. The fishery gave constant employment to 1,400 persons in the Valentia district. During the curing season 1,000 hands were employed in the curing sheds. It was his experience that boats from Baltimore and other parts had frequently to leave without loading their catches owing to being kept waiting most part of a day.

Mr. Healy

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Mr. HEALY.

[Continued.]

Mr. MICHAEL J. HEALY, Fish Buyer, Cahirciveen, Co. Kerry, called in; and Examined.

Mr. Healy endorsed the evidence given by the previous witnesses regarding the difficulty of prosecuting the fishing industry in the district, and gave instances in which fish were thrown into the sea because facilities for curing, icing, and transporting were not available. He explained the circumstances under which

boats and ice were provided, the ice being secured from Dublin and Belfast, and sometimes from Knocklong, but owing to the long railway journey it frequently reached the fishing centre in a very reduced condition.

Mr. W. J. LESLIE, Fish Buyer, Cahirciveen, Co. Kerry, called in; and Examined.

Mr. Leslie confirmed the evidence given by previous witnesses, and emphasised the urgent necessity for an extended pier, with more adequate railway accommodation, as set forth in the plans submitted by Mr. Hicks. He said he was confident that English-trawlers would fish in Kerry waters if Valentia Harbour were equipped to receive their fish. He pointed out that the present accommodation was totally inadequate, and that no scheme competent to meet the need of local fishermen would have any practical utility which did

not, in the main, conform to the general plan outlined by Mr. Hicks. He stated that the fresh fishing trade suffered a considerable loss owing to defective transport facilities. Curing had to be resorted to rather than sending the fish fresh directly to the English market. He was confident that with the improvement to the harbour there would be a larger output of fish, in better condition, as a factor in the food necessities of the United Kingdom.

Mr. O'SULLIVAN, Cattle Dealer, Valentia Island, called in; and Examined.

Mr. O'Sullivan gave evidence as to the want of facilities for the transport of cattle from Valentia Island to farms on the mainland. He said that cattle were frequently lost because of the fact that cattle had to be transported in row-boats instead of by some means which would provide their conveyance to Cahirciveen

and other farms in Kerry. Apart from the limited boat accommodation, there was the difficulty of loading and unloading, and the value of cattle was much depreciated in consequence of the unfavourable conditions under which they had to be conveyed to the mainland.

Reverend WILLIAM KEENE, P.P., Valentia Island, called in; and Examined.

Reverend William Keene made a general statement confirmatory of the evidence of the previous witnesses, and strongly urged the necessity for the harbour

improvements on the lines contained in the plans of Mr. Hicks.

(This concluded the Sitting.)

NINTH PUBLIC SITTING. MONDAY, 16TH SEPTEMBER, 1918.

At the Urban Council Office, TRALEE, at 1.30 p.m.

MEMBERS PRESENT:

Colonel John Grotton, M.P.

Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.

Mr. Walter Hudson, M.P.

Mr. P. J. Hanmon.

Mr. P. J. Hanmon acted as Secretary.

SIR ARTHUR SHIRLEY HENN, M.P., in the Chair.

(Chairman.) On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select

Committee appointed a sub-committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for that purpose. We shall be glad to hear any evidence you may wish to give us in reference to the transport facilities in this district.

Statement by Mr. THOMAS HYOGARD, Solicitor to the Tralee and Fenit Harbour Commissioners.

Mr. Hyogard: I understand your time is limited, and I do not intend to detain you for very long. I shall content myself with reading the following statement: In the county of Kerry the following works have been constructed by the inhabitants, who voluntarily taxed themselves for the purpose through the machinery of Baronsal Guarantees: The Fenns Pier, the Fenns Railway, the Castleland Railway, the Liscannock and Kerry Railway, the Kilgoblin Railway, the Kilgoblin and Valentia Railway, the Headford and Keemara Railway, the Tralee and Dingle Railway. No other county in Ireland has made any effort which can be compared with this, and no free grants were given for any of these works. The last three were constructed under the Tramways Acts. The Fenns

Pier was constructed under the provisions of the Tralee and Fenns Pier and Harbour Order, 1880, at a cost of £26,000. The sum of £26,000 was guaranteed by five baronies of the county and the town of Tralee. It was borrowed from the Commissioners of Public Works in Ireland, and was repayable by a payment of an annual rent charge of £5 for every £100 of such loan for the term of forty years. These instalments will expire in the year 1929. The instalments after 1922 will be decreasing in amount yearly. A sum of £160,000, or thereabouts, has already been paid to the Board of Works on foot of said loan, leaving in round numbers about £40,000 still due, spread over the next ten years. When the pier was undertaken it was contemplated that the main pier would have been

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MR. HUGGARD.

[Continued.]

Mr. Huggard—continued.

150 ft. longer. The money, however, was found to be insufficient, and it became necessary to alter the plans and shorten the pier and curtail the harbour accommodation. In this the harbour and works originally contemplated by the Harbour Board and the Government were seriously reduced in size, and the berths of late years has turned out insufficient for the traffic of the port. The traffic of the port at Fennit developed to an extent which far exceeded the original estimates of the promoters. The imports grew from 27,721 tons to 101,352 tons.

Mr. Hanson.

1862. What was the period?—1885 to 1915. It was originally intended to have berths accommodation along the main pier for two large grain or timber vessels drawing 20 ft. of water. The shortening of the pier, large vessel alongside the main pier and one smaller vessel. If a grain vessel and a timber vessel (the latter drawing less water) are lying against the main pier, then there is no room left for the Limerick Steamship Company's vessel, which may arrive, and there are four merchants importing grain. The present rail facilities amount to only 500 tons per day. It ought to be 1,500 tons a day. Evidence will be called on these matters. It is proposed to remedy this defective state of things by enlarging the central portion of the pier, shown on the plans as quay wall "B." The Harbour Board have carefully considered the question of whether it would be wiser to lengthen the main pier by adding the 150 ft. originally included, or enlarging quay wall "B," and they have arrived at the conclusion that the latter is more feasible and more useful. In addition to the extra berths afforded at quay wall "B," the new work so constructed would add about one statute acre of ground to the pier space, and this in turn would enable a third line of rails to be placed on the pier, which is at present narrow and congested. It would leave room for the erection of elevators, and stores for corn and coal, and storage room for timber. The Harbour Board, by reason of this shortage of berths, have never been able to develop the export of cattle trade. The Board has frequently been approached by the cattle buyers of Kerry to provide vessels at Fennit, representing that there is need for quick transport of cattle from farms in Kerry and the surrounding district, and plenty of ships would be willing to call and accept this traffic if the berths could be found. The construction of this new work at quay wall "B" would enable this berths to be found and this important industry developed. The grain trade, the coal trade, the timber trade, and the cattle trade could all be increased and developed, and there would be still accommodation for the Limerick Steamship Company's vessels or any casual vessels entering the harbour. The harbour of Fennit as a traffic centre is of great importance. The trade originating there extends over the whole county of Kerry and into parts of the counties of Limerick and Cork. The ratepayers of Kerry have made vast efforts in constructing and guaranteeing all the railway works mentioned in the statement. Fennit pier is the feeder of all these lines for a large portion of the traffic, and the development of Fennit is consequently a support and relief to the railways and is to the ratepayers. It is estimated that the new works at quay wall "B" will cost £250,000. The engineer will give evidence on this. The Harbour Board are of opinion, having regard to the vast efforts made by the County of Kerry, that they are entitled to a free grant of £250,000 to carry out the required works at quay wall "B." In addition to this free grant a

Mr. Hanson—continued.

sum of £10,000 would be required to construct a new line of rails, and signals and to erect stores and elevators. It is proposed to ask the Government to advance this further sum of £10,000 by way of loan. The security for this loan would be amply secured by the dues of the port—the consent of the County Council first being obtained to the loan. The interest on this loan would in effect be covered by the extra freight of 1s. per ton which at present is paid to shipowners in excess of the rates of the United Kingdom. The excess has to be paid at Fennit by reason of our slow rate of discharge, namely, 350 tons per day for one ship, against about 500 to 600 tons at other ports.

Now, sir, I propose to examine Mr. Kelleher, chairman of the Harbour Board.

Chairman.

1863. (To Mr. Huggard.) You may do that afterwards, but I would like to ask you some questions—Certainly.

1864. When the pier was undertaken, there were suggestions for extending it by 150 feet—Yes, that would bring it to the original length contemplated by the promoters.

1865. Would that give you sufficient length to handle big grain ships?—I believe it would.

1866. Has any estimate been made for the building of that 150 feet?—The engineer, who will be examined, and the Harbour Board have considered the question whether it would be better to lengthen the main pier by adding the 150 feet or enlarging the quay wall "B," and, as I have already stated, they are of opinion that the latter scheme would be the more feasible and useful.

Mr. Maurice Kelleher.] The cost would be about equal.

Chairman.

1867. (To Mr. Huggard.) You propose to borrow the £10,000 which would be required to construct the new line of rails and signals and to erect stores and elevators from the Government?—Yes, sir.

1868. You state, "The interest on this loan—the £10,000—would in effect be covered by the extra freight of 1s. per ton, which at present is paid to shipowners in excess of the rates of the United Kingdom."—Yes.

In the case of ships coming into Fennit, we have to pay shipowners a 1s. a ton more than is paid at other ports, by reason of the fact that we can only discharge 350 tons a day instead of 600 tons a day, and that is because there are only two lines of railway on the pier, and the railway cannot handle more than 350 tons a day. If we had a third line and more storage we could turn out 500 tons a day from a grain vessel, and we would then be relieved from this extra 1s. a ton, which is a big thing, and falls on the farmers and producers. We would get rid of that 1s. a ton if we could unload 600 tons a day. The owners would not require to be paid the 1s. on their grain vessels. It is only on grain the shilling is charged. In Tealee, we are the centre for distributing goods all over the county. As I already stated, Kerry has guaranteed for piers and railways £250,000, which is an effort not made by any other county.

1869. We quite realise that, and quite appreciate what Kerry has done. What I want to get at is—Is there anything to prevent a steamer laden with grain and lying always afloat, and that does not draw more than 22 feet of water, being ordered to Tealee?—They won't come unless they get the extra 1s. a ton, owing to the fact that 500 tons of cargo a day cannot be discharged at Fennit.

Mr. MAURICE KELLEHER, J.P., Chairman, Tealee and Fennit Harbour Commissioners, called in; and Examined.

Chairman.

1870. We would be glad to get some further information from you in reference to the harbour at Fennit?—I would like to state in connection with the extra charge of 1s. per ton on grain vessels coming to Fennit, that that was fixed by the shipowners owing to the fact that we were only able to discharge 350 tons a day. Boats of 3,500 tons have to remain ten days in our port to discharge, and that is why the shipowners demand 1s. a ton extra. At present we cannot under-

Chairman—continued.

take to discharge faster than 350 tons a day. If the improvements we suggest were carried out we would have a return in the shape of storage. We have no return now for the extra 1s.

1871. It means paying an extra 1s. a ton on the merchants until you have got rid of this loan of £10,000 which you require?—We would have to pay a shilling extra dues on maize until that is cleared.

1872. You

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Mr. KELLEHER, J.P.

[Continued.]

Colonel Gretton.

1872. You would not propose to charge it for coal or timber?—No.

1873. Grain only?—Yes. That would provide £1,000 a year.

Chairman.

1874. What is in some evidence as to the difference in the cost of extending the pier 150 feet and putting this proposed alteration to quay wall "B"?—The addition of the 150 feet would deprive us of the storage. We could only get storage at the other point.

1875. Mr. Kelleher, as a large trader and chairman of the Harbour Board, you are intimately connected with the working of the pier and are aware of the value of the proposed quay wall?—Yes. The one thing I wish to mention specially is the deep loading berth. At present, when a grain or timber boat comes in to discharge they cannot be handled together. If there are two boats lying at the pier they cannot discharge at present. That occurs very often. We have a timber barge and a grain vessel together, and then there is complete confusion. The capacity for discharging or handling by the railway is only 600 tons a day. We think that that should be multiplied by three. The proposed works at quay wall "B" would give all the facilities we require.

1876. If you had a 900 feet wharf, and you had two grain steamers in, have you sufficient railroad accommodation to handle them?—Yes, with the increased railway tracks that we could lay on this land. With the extension we should get on a third rail, but that is at present almost impossible, owing to the width of the pier. We could not get the third rail on the pier proper—it is too narrow.

1877. You would have to put it on piles?—Yes, or something extending three or four feet outside the pier.

Mr. Haggard.

1878. The proposed work at quay wall "B" would give you about a statute acre of increased space?—Yes, and our rails could be laid in a manner that would carry out the traffic properly.

Chairman.

1879. Has any effort been made to extend the pier since the war?—No. The last assistance we got from the Government was the removing of the old viaduct, which is now a new one; made about five years ago; but the amount given was too low. With a little further expenditure we could have concrete piles. It would have been very much better if we could have got the concrete piles. I believe £5,000 extra would have done that.

1880. There is a sandbank outside the pier?—Yes. 1881. Have you any estimate as to the length of time it would take to carry out the work you have in view, supposing you get promptly ordered?—The engineer should answer that.

1882. With regard to the chartering of steamers, have you known a vessel chartered for a safe port in the United Kingdom to be ordered here and not to come here?—Yes, since the shipping companies made the regulations in reference to the 1s. a ton on grain cargoes. We offered to increase the rate of discharge to 400 tons a day, to save us from this penalty of a shilling a ton on grain, but failed.

1883. It applies only to the grain?—Yes. It does not apply to anything else, and this matter of the extra charge was arranged between the grain importers and the Shipping Corporation. We look on it as a great hardship, but there is no remedy so far.

1884. Except to get the facilities that will give a sufficient discharge?—Yes.

1885. Is your import trade increasing?—Yes, it was increasing before the war.

1886. Since the war?—We are closed completely. The Admiralty has allowed no foreign boats to Fenit for the last twelve months.

1887. Have you not had some grain ships?—Not for the last twelve months. The port is entirely closed, except that the Linerick Steamship Company's boat is allowed to come.

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Colonel Gretton.

1888. Where does the railway company's property end and the Harbour Commissioners' property commence?—Almost at the station; but the railway company have running powers over our property, of course.

1889. Who is responsible for the working of the traffic in the harbour?—The Great Southern and Western Railway Company. We simply work the lines.

1890. The railway company laid the rails on your property?—Yes.

1891. Are they prepared to lay extra lines?—We may have to do so. The chances are that they will assist us, because it will save them a great deal of wagon room; but we had not time to consult them before this sitting to-day.

Chairman.

1892. We have full particulars about Fenit, but we came here to see if there were any further suggestions?—We have put our suggestions before you.

Colonel Gretton.

1893. Is there any reason to anticipate any difficulty in obtaining the co-operation of the railway company?—No; I think they will do what is fair in the matter. The Great Southern and Western Railway Company are not very many years with us. The Waterford and Limerick Railway Company had charge for a long time, and the Great Southern and Western for some years past. Nothing arose in connection with which we could make a claim on them. We suggested to them about the grain storage.

1894. You are not prepared to give any decided opinion as to the position of the railway company in reference to the laying of the rails?—No, I am not.

Mr. Hennes.

1896. You are chairman of the Harbour Commissioners, and you have considerable business experience of Tyne?—Yes.

1896. Is it your opinion that the development of your harbour at Fenit on the lines indicated in the statement made by your solicitor would tend to the economic development of this part of Ireland?—Yes, positively. I am quite certain of that.

1897. Do you think the productive energy of this part of Ireland would be stimulated if that harbour were made the perfect medium of transport you suggest?—Yes. It is not an efficient way to work the traffic of this district the way the harbour is worked at present, but it would be if the £250,000 we require were spent on its improvement as we suggest.

1898. Are you giving expression to the views of the trade now?—Yes. The majority of the members of the Harbour Board are connected with trade.

1899. What about the farming community?—They would not see the advantage of the harbour to themselves unless it were explained to them. Dealers and farmers are desirous of having a cattle trade from Fenit, but we could not attempt that unless the improvements we have outlined are carried out. There would be plenty of room for linages on the pier.

Chairman.

1900. You are short of cranes?—No, we have ample cranes. We have six cranes, which are quite enough.

1901. For what traffic you have got at the moment?—Yes, and for more traffic. We are amply supplied with cranes.

1902. If you had two grain ships in and your Linerick steamer have you got sufficient accommodation?—The railway wagons are what limit us. We can only do 600 tons a day, and the cranes usually accomplish that.

1903. But would you not have more railway wagons down?—If we had a third rail line we could increase them.

1904. Is it your intention to have a third line?—Yes, and then we could double our output.

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1905. You

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Mr. McCARTHY.

[Continued.]

Mr. ROBERT McCARTHY, Harbour Master, Freet, called in; and Examined.

Chairman.

1905. You are harbour master at Freet—Yes, sir, for the past thirty years. In consequence of the shortening of the main pier by 150 ft. there is only a length of 730 along the main pier. All of this is not deep water. There is room for one large grain vessel and one smaller vessel drawing less water along this pier, and when these two berths are occupied there is no place for the Lamerick Steamship boat, which calls each week, no place for a second grain vessel, or any extra vessel which may call. In consequence of want of space the traffic on the pier is congested and hampered, and shipowners have to be paid 1s. a ton more than at any other United Kingdom port on account of the slow discharge. The best remedy would be the construction of the new proposed works at quay wall "B". The extra space is very badly required, and the extra berths would be invaluable. At the present time quay wall "B" is practically useless on account of the rock bottom in front of it and the small depth of water, which is only about 8.40 ft. The trade of the port has been steadily developing for years. The tonnage has risen from 27,000 tons (in 1885) per year to 151,000 tons per year in 1913, and after the war, when trade revives, there are great possibilities for Freet Harbour if it gets a fair chance of working. The pier railway and traffic is worked by the Great Southern and Western Railway Company, who are willing to develop the traffic, but they are greatly hampered for want of room and proper facilities. At present one vessel can unload 350 tons a day as the maximum. Our discharge scale on the international charter party scheme is 350 tons for grain per day and 250 tons for coal per day. Instead of this, we should be able to meet the traffic requirements and obtain the lowest rates to discharge 600 tons of grain per day. This could only be done by constructing a third line of rails and erecting storage rooms for grain. As regards want of storage, work has often to be suspended in consequence of bad weather. This could be avoided if stores were erected. The cattle trade could be also developed if the new work at quay wall "B" is carried out.

1906. Are you limited to 22 ft. of water?—Yes, at present.

1907. Can you get more by dredging?—Not in the bay.

1908. Can you at quay wall "B"?—Yes.

1909. What would you expect to get there?—About 25 ft.

1910. At low water?—Yes. At present we cannot get more than 22 ft. on account of the foundation of the pier, because the concrete blocks project out at the bottom. We cannot go below that. The extension of the wharfrage would be no good to us, as only one line of railway would be working.

1911. Do you know if any estimate has been made as to the length of time it would take to make the extension?—I cannot say—probably about a year, I suppose. It might be less.

Mr. G. A. E. Hildes, Engineer to the Harbour Board: It all depends on getting the material.

Chairman: Subject to priority.

Mr. Hickson: Yes.

Witness: The material would not be much. It would be all rock. It is within twenty yards of us.

Chairman.

1912. Cement would be difficult to get?—Yes.

Mr. WILLIAM H. McCOWEN, Managing Director of Merchants, and Member of Trade and Freet

Chairman.

1930. You are a member of the Trade and Freet Harbour Board?—Yes, sir, for nearly twenty years.

1931. You are a miller and general merchant?—Yes.

1932. You largely deal in timber?—We do. Of course we have got nothing in that way for the last three years.

1933. What evidence do you wish to give us in reference to the harbour?—Freet pier and harbour were constructed in the 'eighties, and until 1917 enjoyed a

1913. Are there any fish landed at Freet now at all?—No, sir, not at present.

1914. What sort of cattle export have you?—None at present. If we had a berth I think we would have a lot of cattle exported, but we have no means of shipping them. The pier is too narrow for any purpose in the world. There is no accommodation. The pier is only 36 ft. wide, and you could not do anything in the place. There is scarcely room to store empty sacks in it.

Colonel Gifford.

1915. With regard to the bank that is the obstacle to lengthening the pier, could that be easily moved?—It could be dredged, but it would not help the matter.

1916. Any scheme for lengthening the pier would not be an advantage?—No. The position would be just the same if you lengthened the pier.

1917. You would not have any more accommodation?—No.

1918. Do vessels chartered for Freet find a safe anchorage when the pier space is occupied?—No, sir; they would have to go out about half a mile for a safe anchorage. There is plenty of water, but the channel is narrow.

1919. Is there safe anchorage for them in the neighbourhood?—In the summer time, but not in the winter.

1920. Where is the safe anchorage in the winter time?—There is none.

1921. Where do the vessels lie in the bad weather when the pier space is occupied?—One would lie outside the other.

1922. She would be outside the pier, waiting for the other vessel to clear?—Yes. They often have to do that in bad weather. There is no other remedy for the matter.

1923. Would it be possible to increase the wharfrage by 250 ft.?—It would, by dredging. You could lengthen the pier easily up to 350 ft. by dredging, but it would not help matters at all. The widening of the pier is the chief thing.

1924. The wagons cannot go under your present cranes?—No. If we have southerly gales in the winter the work is stopped.

1925. How is that going to be prevented?—This wall will prevent the whole thing. This is an island, and it shelters the whole place. The wind breaks right over the pier, whereas here it is quite sheltered. There is an island and it shelters the place.

1926. Would the £20,000 be sufficient to carry out the improvements at the pier?—I think so.

Mr. Hickson: It is only £50 ft. (He explained the position of the proposed improvements on the map.)

Witness: The estimate does not include anything in the shape of stores.

Colonel Gifford.

1927. This £20,000—is that a pre-war estimate?—Perhaps it would be suitable for the present time. It is practically double the pre-war estimate.

Mr. Hanson.

1928. The original estimates were for £10,000 and £5,000?—Yes, something like that.

Chairman.

1929. Is there any other point you would like to mention?—I think everything else was mentioned by Mr. Kolbeke.

Robert McCOWEN and Sons, Ltd., Millers and General Harbour Board, called in; and Examined.

Chairman—continued.

prosperous time. Owing to the increase in size of ships some changes are now necessary for rapid discharge and handling of cargoes. This will be more necessary after the war, as the standard size of ships is being very much increased. At the present time, at the main pier there is only berthing for one large grain steamer and one small ship, and when these berths are taken there is no room for the weekly steamer from Liverpool or any coastal steamer. Owing to the want of facilities for rapid discharge of cargoes the port is penalised.

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Mr. McCOWEN.

[Continued.]

Chairman—continued

penalised to the extent of 1s. per ton freight over the other Irish ports. We cannot now discharge more than 500 tons per day; this should be doubled to make the port a success. Lord St. Davids and his Committee visited Fenit last year when making a tour of the principal ports of Ireland. They were quite surprised to find such an up-to-date port, so well defended and so admirably protected from submarine attack owing to the formation of the outer bay. They gave me to understand that such a harbour as Fenit ought to be considerably developed; 1st, by the extension of the pier; 2nd, by placing a third line of rails on the pier to ensure continuous working of ships; 3rd, by the erection of a suitable store or granary adjacent to the rails, to be utilized when there would be a shortage of waggons. These improvements, if carried out, would be an immense advantage, and, in my opinion, absolutely necessary for the increased traffic which is bound to come after the war. The yearly instalments of the loan will be paid off in a few years, when the harbour dues can be reduced to a par with other harbours and which will undoubtedly bring an increase in traffic. No ship bound for Fenit has been sunk during the war, proving what a suitable port it is. Since the pier was built no ship was lost entering or leaving our bay, which is also in its favour as a safe port. Fenit Pier has been of the greatest advantage to the town of Tralee, the neighbouring towns, and in fact the whole county of Kerry and portions of the counties of Cork and Limerick, owing to the facilities for landing and forwarding of goods direct from ship to rail without any intermediate handling. The growth and prosperity of the town since Fenit was opened was most marked, several ter-

Chairman—continued.

aces of houses were erected, and there was in course of erection up to the outbreak of the war. Tralee is one of the only provincial towns in Ireland which has increased in population during the last decade. This is the largest pig-producing district in Ireland, and a very large quantity of maize is annually imported direct from Argentine for four times of milliners, who send the manufactured article all round the county and into the neighbouring counties.

1934. Would the proposed extension suit the business here other than grain?—Yes. It would be a great advantage, because at present we cannot handle all cargoes that come in. I remember having a thousand tons of grain piled on the pier for want of tracks and accommodation. A couple of years ago—just before the war—we had a steamer with a cargo of timber, and she clashed with another and had to go to Cork.

1935. You could not handle the two together?—No.

1936. That was dealt?—Yes. She had to take about 700 standards to Cork.

1937. You were going to discharge her here?—Our cargo was in first and had the berth. This other cargo came in and had to be outside our ship, and eventually had to go away to save damage. I think a large sum had also to be paid for diverting her.

1938. So that you have not got accommodation even for your present traffic?—No.

Mr. Houston.

1939. That is to say, if normal conditions were to be resumed after the war?—I think it will be much heavier than.

Mr. JAMES O'KEEFE, Agent, Limerick Steamship Company, Tralee, called in; and Examined.

Chairman.

1940. You are agent for the Limerick Steamship Company?—Yes, sir. The Limerick Steamship Company have, as normal times, a weekly cargo steamer service between Liverpool and Fenit and a fortnightly service between the Continent and Fenit. Portion of the cargoes is lightered to Tralee (canal bank) by barges through the canal, and these are charged into our stores for delivery to the town and to the U.S. and W.R. and F. and D.L.R. for distribution through the County Kerry and parts of the Counties Limerick and Cork; and portion is put on rail at Fenit. Our steamers draw from 15 ft. to 18 ft. of water and can only be berthed with safety at the main pier. There is only one berth at Fenit Pier where vessels drawing over 16 ft. of water can be berthed with safety, and that is at the end of the main pier. These vessels could be brought alongside at the berth between that at the end of the main pier and quay wall "B," and also at quay wall "B" at high water, but they would take the ground at these berths at low water, and on account of the rocky bottom along quay "B," and projecting about 150 ft. along the main pier, they would undoubtedly suffer damage. On this account, when a large corn steamer of about 350 ft. in length is berthed at the end of the main pier, an average sized steamer, say about 270 ft. in length, if berthed inside the corn steamer at the main pier or at quay wall "B," would have to take the ground at low water, and our company could not take the risk of allowing that to occur. When, therefore, such a steamer of ours arrives there is no berth for her if a corn steamer is at the port, and in such cases we have been compelled to lie on the south side of the main pier, and there discharge the cargoes into barges. Such work is only carried out with great difficulty and danger of damage to ship and lighters. There is no protection from the prevailing south-west and south-east winds during winter months, and the heavy seas as a consequence of such winds, and on several occasions when it was necessary to adopt such a course, it was found that work had to be abandoned for those reasons, which meant that the steamer was seriously delayed, and at times, when the delay was very considerable, cargo had to be carried on to Limerick and there discharged and pulled to Tralee, or reloaded into discharge. When a steamer had to discharge in this manner (i.e., at the south side of the

Chairman—continued.

main pier) none of the cargo could be worked ashore. It is very seldom that sufficient barges are available to lift all the cargo, and even in cases where the number of barges available was sufficient to accommodate all the cargo to be landed at Fenit, it would be most inconvenient and expensive to this company to handle portion of the cargo in this manner, as portion of each cargo is intended for towns outside of Tralee, and for storing in merchants' sheds adjoining the railway sidings in Tralee, which, if lightered to Tralee, would have to bear the extra handling and expense of being discharged from the barges into our stores at Tralee, thence loaded into carts, and carried to the railway station, which is a considerable distance from the canal basin. Our desire is to avoid such an expensive method of handling goods if possible. Our small steamers can be accommodated in the berth between that where large vessels berth and quay wall "B," but on very many occasions this berth is occupied by such vessels as timber barges or schooners, and in such cases we have to adopt the same method of accommodating our smaller vessels as the larger ones, as the berths along quay walls "A" and "B" are not suitable for vessels drawing more water than 10 feet to 12 feet, and none of the steamers which we had or have on the services mentioned are such shallow draft. The only other alternative left to us when the main pier is occupied, in the case of our small steamers, is to go alongside quay wall "B" at half-tide and work there until half-ebb tide, when the vessel would have to leave the berth to avoid taking the ground. This would leave only about six hours to work cargo ashore, and in the intervening six hours no cargo could be discharged to or loaded from the shore. We have often adopted this course, especially when lifting cargoes of pitwood, which traffic can only be accommodated at this berth. It is quite apparent how unsatisfactory and expensive such a manner of working is. Another great difficulty this company has to contend with is the lack of storage accommodation at Fenit. The present storage accommodation is useless to us, because, as already explained, we cannot make the reasonable use of the berth along quay wall "B," where the only small store is situated. Our necessity for proper storage accommodation arises from the following facts:—(1) Very often the extent of the cargo which it is necessary to have lightered to the canal basin is greater than the capacity of the available barges,

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Mr. O'KEEFE

[Continued.]

Chairman—continued.

berges, and cargo has accordingly to be limited at port of shipment, and in such cases has to be shipped by other routes, such as via Cork, Waterford, or Dublin, necessitating long railway haulage to Tralee from these ports. If storage accommodation was available each cargo could be discharged into same at Funt, and the barge could lift the traffic at their convenience. (2) On very many occasions there has been great scarcity of railway trucks, and steamers have been delayed, and at times have had to over-carry cargo to Limerick on this account. If storage accommodation was provided such would be obviated. (3) We have great difficulty in handling goods for outward shipment with the present facilities. When a steamer arrives here fully loaded her cargo, or at least the greater portion of it, must be discharged before outward cargo can be loaded, and the only means we have at our disposal is to keep such outward cargo in one or more of the barge and till room is provided on the ship. This means that nothing can be loaded into the particular barge or barge which have the outward cargo until one, or possibly more other barges, are loaded first. The awkwardness of such an arrangement can be readily seen, and is impossible to work in many cases, when it has been found necessary to first land the outward cargo on the pier without any protection from the weather, and then reload into the steamer, when all the inward cargo has been discharged. On account of these difficulties we have not been able to develop the outward traffic from this port as we would like to. If a proper store was provided at Funt outward cargoes could be collected there before the steamer's arrival, and thence loaded after all inward traffic has been dealt with. (4) Bad weather on many occasions prevents the barges from getting down to Funt from the head of the canal, and on such occasions steamers have been seriously delayed at the pier, having no accommodation ready to receive their cargoes. A suitable store at Funt would remedy this.

The proposal made by the Harbour Board, if carried

Chairman—continued.

out, would, in my opinion, in addition to facilitating the discharge of grain steamers, overcome to a great extent the principal difficulties under which we have been carrying on a regular cargo service to this port, for the following reasons:—(1) It will place at our disposal a second berth for our large vessels instead of one berth, and a third berth for the smaller steamers instead of two. The shortening of the main pier will not be any disadvantage, because a corn steamer, say 350 feet long, and one of our small steamers, say 220 feet, can both be accommodated at the remaining 600 feet. (2) Proper storage accommodation can be made on the space of over one acre in extent which the new work will add to the quays. (3) Fitwood and such cargo can be loaded into our steamers from the new berth without any of the delays which take place presently. (4) It ought to be feasible then to develop the cattle export trade from Funt, which has already been considered by our company and found to be impossible with the present facilities. There will be plenty of room then to construct cattle pens and lairages from which the cattle can be shipped. We are of opinion that in consideration of the usefulness of our service to the county of Kerry that our interests should be catered for and proper facilities provided at Funt Pier.

We therefore respectfully beg to ask that the Sub-Committee on Inland Transportation (Ireland) would recommend the granting to the Tralee and Funt Harbour Commissioners the comparatively small sum required to provide the necessary improvements proposed.

Chairman. The Sub-Committee will go down to see the harbour. From the evidence we have heard, we think it would be a great advantage to have the extension.

Mr. McCovee. And the granary stores.

Chairman. That is a matter we would have nothing to do with. It is a matter for the local people.

(The Sitting then concluded.)

TENTH PUBLIC SITTING: MONDAY, 16TH SEPTEMBER, 1918.

At FOYNES, at 7 pm.

MEMBERS PRESENT:

Colonel John Gretton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.
Mr. P. J. Hannan.

Mr. P. J. HANNAN acted as Secretary

SEE ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

The Right Hon. Lord MONTEAGLE, K.P., Chairman of the Foynes Harbour Trustees, called in; and Examined.

Chairman.

1961. You were already examined before us in Dublin, and I understand you now desire to give further evidence?—Yes, in connection with the facilities for goods traffic at Foynes. (1) As stated in my previous evidence, the harbour was transferred from the Board of Works to the Trustees in 1899. It was originally built in 1849, on the mud, the necessary depth of 10 ft. at L.W.S.T. being obtained by dredging. Dredging was only done subsequently at long intervals, mud accumulated constantly, and in 1849 was 3 ft. above L.W.S.T. It continued about this level until 1890, except for a short interval after dredging was done in 1869-71. The trustees have succeeded in keeping the mud down to 5 ft. above L.W.S.T., and this provided the three berths for coasting trade originally designed, two of which were not available in

Chairman—continued.

1890 owing to the mud. (2) On the transfer in 1899 the Trustees were advised to extend the pier into deep water, instead of dredging alongside the pier. This was done at a cost of £2,115, which was met by a Government grant of £1,000, and a Government loan of £1,000. This loan has been paid off. (3) This extension attracted the British Petroleum Company to establish an oil depot at Foynes, an important addition to the traffic of the port. And in 1904 two large mooring barges were put down, at a cost of £772, to accommodate oil vessels. A store on the quay was purchased in 1908 for £30, and a sum of £690 was advanced by myself to meet these two payments, and since paid off. (4) In order to meet the growing traffic of the port in coal and timber, the Trustees were advised by Sir John Griffin in 1913 to construct a new pier eastward

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The Right Hon. Lord MONTEAGLE, K.P.

[Continued]

Chairman—continued.

ward of the existing pier, carrying the same to deep water and filling in the intervening space at an estimated cost of £5,000. (5) The Treasury promised a loan of £7,000 to carry out works on Sir John Giffith's lines, but in consequence of the war this loan was reduced to £2,000, and the plans curtailed to come within £4,000, the balance of £5,000 being lent by myself, any excess to be provided out of moneys. (6) These curtailed works have considerably exceeded the estimate, and are not yet quite completed. They will, when finished, afford five berths instead of the single one available before the transfer. (7) The completion of the deep water extension, etc., on Sir John Giffith's lines is urgently needed to meet the requirements of ocean trade, especially in timber, and would be the means of developing other trade, both exports and imports, such as limestone, potatoes, oats and hay, manure, feeding stuffs, agricultural machinery, hardware, etc. (8) The district now served by the harbour embraces the whole of West Limerick and a considerable part of West Clare, to which it is nearer, either by rail or water, than either Limerick or Fermoy, as the accompanying Schedule (A) of Distances will show. If developed as above, a much larger area would be served, owing to the rare combination, unequalled, I believe, by any harbour on the West of Ireland, of accessibility, shelter and small cost of development. The Trustees believe it is only a question of time when

Chairman—continued.

the important grain trade will find its way to Foynes. (9) I enclose two schedules (a) showing the traffic of the port, of different descriptions, since the transfer, and (c) showing the receipts and expenditure for the same period. These, I think, establish the statement made in my previous evidence that, with very small assistance from Government, and none from any local authority, the Trustees have made the best use of their opportunities and of their limited funds, and justify the claim they now make for further assistance from the State. As regards traffic, it will be observed that the total has increased from 7,454 tons in 1890 to 21,449 tons in 1915, the last year before the war, and that it includes three important new trades—viz., basic slag, iron, and oil, without counting wheat, the importance of which in 1915 was, in the present condition of the harbour, exceptional, being due to the closing of Limerick Docks for repairs that year. The total receipts and expenditure from 1890 to 1903 showed a deficit of £445, whereas the period from 1904 to 1917 shows a surplus of £335 after paying £408 spent on permanent works. (10) I desired the Trustees to produce expert evidence as to both the navigation facilities and the engineering possibilities of the port. In connection with the latter I may point out that an admirable site for a dry dock 600 ft. long, almost ready made, lies on Foynes Island, just below the present harbour.

Mr JEREMIAH O'CONNOR, Trustee of Foynes Harbour, called in; and Examined.

Chairman.

1902. We shall be glad to hear whatever evidence you have to offer us in connection with Foynes Harbour, of which I understand you are trustee.—Yes. In 1879 an American liner on passage from Liverpool to New York put into the Shannon for shelter. She found safe anchorage in the entrance to Foynes Harbour, and the serious damage she had sustained from a storm was made good in twelve days whilst she was lying there, by a firm of shipbuilders from Limerick. In the summer of 1882 the s.s. "Scandinavian," Allan Line, made two sailings from Foynes to America and took in emigrants. She anchored in the Foynes roads. The emigrants were put on board by a small tender from Foynes Pier Head, but the great drawback at

Chairman—continued.

that time was the want of a deep water pier, for the tender could only come alongside at high water. This accommodation is now happily supplied by the local trustees extending the pier to a deep-water berth, where vessels drawing 25 feet of water can berth at low water spring tides. Great quantities of merchandise were delivered at Foynes for transit in the years as follows, 1879, 1880, 1881, 1882, 1883, and 1884. It was contemplated at that time to establish a fish station at Coughsholt for taking in fish from the boats, and to ice and pack it, there, ready to put on board steamer for Foynes, thence per rail for the London markets.

(The Sitting then concluded.)

ELEVENTH PUBLIC SITTING: TUESDAY, 17TH SEPTEMBER, 1918,

At CHAMBERS OF COMMERCE, LIMERICK, at 11.0 a.m.

MEMBERS PRESENT.

Colonel John Gretton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Walter Hudson, M.P.
Mr. Matthew Keating, M.P.
Mr. P. J. Hannon.

Mr. P. J. HANNON acted as Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., in the Chair.

Chairman.] I had better state why we are here. As I expect you are aware, the Select Committee was only appointed on the 16th of August last by the House of Commons for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, and to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Committee met for the first time on the 8th August, and it was suggested to them that it would be well to appoint a Sub-Committee to come over to Ireland and get posted on the condition of the ports

and canals prior to the meeting of the Main Committee on the 1st of next month. On the 15th August, the Sub-Committee who are now here was appointed, and our reference was "to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose." That Sub-Committee was only formed on the 15th August. We then got a secretary over here in Ireland, and we asked him to report arrangements in all the local papers throughout the country stating our terms of reference and that we would be glad if people who wanted to put forward statements, should send a copy of the statements

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Mr. POWER.

[Continued.]

statement to Dublin as soon as possible after the end of this month, so that when the Sub-Committee sat in Dublin they could arrange what their route would be in the way of visiting ports. We then made up a list of places we should visit, and if there are other places that should be visited it is because we have not received information from them. We have got to finish up and have a report ready to put before our Main Committee when it meets on the 1st of next month.

Mr. Field: I think the advertisement to which the Chairman refers appeared in 52 papers.

Mr. J. P. POWER, Secretary, Limerick Harbour Board, Examined.

Chairman.

1963. I understand, Mr. Power, you are Secretary to the Limerick Harbour Commissioners?—Yes, sir. Vessels carrying 6,000 to 7,000 tons of cargo are handled in this port.

1964. On what draught of water?—An ordinary high water, 22 feet. In cases where vessels arrive during these tides they can be lightened some 16 miles down the river where they can lie safely adrift—at Bay Castle. Coming on a spring tide draught 22 feet, they could be docked direct. There are facilities for lightening these vessels. There is a steam derrick and a barge which proceed down the river, and generally it might require only one lightening of the vessel to enable her to come right up the dock. Of course, I am speaking of cargoes of grain. The harbour consists of a floating dock capable of providing accommodation for several large vessels with shed accommodation. The size of the floating dock is 7½ acres, and the length of the north side 630 feet, north 780 feet, and the west 465 feet. There is a dry dock 428 feet long, where vessels can be overhauled and repaired, and there is a line of quays with safe berths for vessels to lie on the ground at low water. With regard to the port facilities, there is, of course, an elevator for the discharge of grain. It can handle 500 tons per day of nine hours, and there are also some hand cranes. There is a six-ton crane and a 5-ton crane.

1965. They are not travelling cranes?—No; they are not travelling cranes. Besides the dry dock we have quays and tidal berths.

1966. Where they lie aground?—Yes. The length of quays is about 3,000 feet, and we have three cranes, 5-ton, worked by hand, and there is one electrical crane being constructed and nearly finished for handling coal.

1967. Is that a travelling crane?—Yes.

1968. Can trucks go underneath?—Yes, that is the idea. Of course, we have no railway down yet.

1969. We will come to that in a minute?—Yes. In the dry dock of 428 feet we have over 100 tons 367 feet, and the width of the entrance is 43 feet 11 inches, and there are over 17 feet on ordinary spring tides on the sill. The graving dock is down here on the map.

1970. You have to go into the floating dock to get into it?—Yes, you have. There are nearly 3 acres available for sheds.

1971. You spoke of the elevators for the discharge of grain?—Yes.

1972. After you have discharged, how do you handle the goods?—The cargo is discharged right into the warehouses.

1973. And what is the delivery from the warehouses?—By sacks. The grain is filled into sacks and carted to the rail or mill.

Mr. HANSON.

1974. How far?—The railway would be about a mile.

Chairman.

1975. You have no railroad communication with the dock?—No. It has been felt for a considerable time that there should be railway communication, and the engineer has planned a proposed connection with the Patrick's Well line. It runs away from the west end of the floating dock into the country and joins on after a length of 2½ miles with the railway system.

Mr. HANSON.

1976. Which system?—The Great Southern and Western.

1977. Which branch?—The Patrick's Well Branch.

Chairman.] Yes, all over Ireland. We are anxious to get full information as to what size vessels you can take up to Limerick, what sort of discharge you can give, if anything can be done to improve the port so that bigger vessels can be taken, if the railways are so placed that quick facilities can be given for discharge and good facilities for distribution. We also want to find out what your communication is with the Grand Canal and the canalised portion of the Shannon. These are the main points on which we want information to-day.

Chairman.

1978. Have you got no railway communication with your shed accommodation?—No. The grain elevator I mentioned a moment ago is privately owned. It is not the property of the Harbour Commissioners. It is owned by Messrs. Ballantyne and Sons.

1979. Is all that ground owned by the Harbour Board?—Yes, and the warehouses also.

1980. Where is the elevator?—Floating in the dock. We have powers under the lease to acquire the grain warehouses. The elevator goes down the river to lighten vessels when they require it.

1981. And then discharge into the barges?—Yes, into a big lighter. Perhaps one discharge would be sufficient to enable the boat to come into dock.

1982. There is no place to which they could go and discharge into the railway trucks?—No.

1983. What is the distance that the railway would have to be lengthened?—About 2½ miles.

1984. Has any effort been made to get that done?—Yes. Some years ago there was a scheme presented to the Harbour Board and the Limerick Corporation to connect the docks and quays with the railways. Both bodies agreed to give certain guarantees. When the matter was put ripe one of the walls of the floating dock fell in and it had to be rebuilt, and that meant an expenditure of £20,000 and it stopped the project.

1985. Has any effort been made since the war commenced?—Lord St. David's Committee visited Limerick and inspected the proposed line of railway to the docks and the facilities there. They were very pleased with what they saw, and particularly with the idea of the railroad. Lord St. David then requested that the information we gave him should be put in writing and sent to London, to his Committee, with a sketched plan of the proposed railroad. This was done. I don't think his Committee carried out anything beyond making a report.

1986. Have you got a copy of the report that was sent to the Committee?—Yes.

1987. Can you let me have it?—Yes.

1988. Will you send it in to us?—Yes. I don't know if you wish to hear a statement as to the financial position of the port.

1989. I think it would be better to hand that in.

Mr. Field.

1990. Perhaps you would give it to me briefly?—Yes. I take the year 1913, the year before the war. Since the war commenced the port has been so interfered with that the figures would not really give you any idea. In 1913 the revenue was £16,232, and the expenditure, leaving out the repayments of loans and interest, was £10,094, which leaves a surplus of £6,138. Out of that was paid in loans, principal and interest £3,623.

Chairman.

1991. How much of that was interest and how much was repayment of loans?—The greater part was a consolidated debt which was fixed at £2,012 per annum by Act of Parliament in 1867. The Commissioners at that time were under the impression that we were overpaying the Treasury and the matter was taken up and it was admitted, and the debt was commuted to a certain sum.

1992. You will let us have a statement?—Yes. In 1913 464 vessels arrived in the port, representing a net registered tonnage of 139,324 tons and, roughly, in cargo 500,000 tons. We have reduced our indebtedness from £22,000 in 1913 down to £13,350.

1993. With regard to your cargo of 500,000 tons, could you tell us how many steamers and how many sailing

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Mr. POWER

[Continued.]

(Chairman—continued)

sailing vessels there were?—I cannot give you that right off. The sailing vessels would be very little—about 5 per cent.

1974. Can you let us have a statement of that and show how much is coasting trade and how much ocean-going?—Yes.

1975. Has any effort been made by the Harbour Commissioners to get the Railway Company to run a line down to the docks?—Yes. We have approached the Great Southern and Western Railway Company with that view, but they were not favourable to the expenditure. At the present time they say that they cannot take up the matter at all as they are controlled by the Government.

1976. Do you know what the expenditure would be?—About £30,000—about £25,000 without taking into account the rails. It is difficult to find the cost of rails, but Mr. Shedy estimated that the total cost of the work would be about £35,000. I am speaking from memory.

Mr. MASON.

1977. Do the Harbour Commissioners consider that if they had the railway communication that it would enable lower freights to be obtained on vessels coming here?—Yes.

1978. It would mean quicker discharge?—Yes. It would increase the trade of the port, and by increasing discharge it would be the means of inducing owners to send vessels here, and it would be to the general public advantage, because Limerick is a very important centre for distribution.

1979. Will you or someone also give us evidence on the possibility and the expense of getting deeper water to Limerick, so that ocean boats could come in here without waiting on tide?—The engineer could do that. That is from what we call the "flat," Bough Castle, to cut a channel.

1980. Yes?—That would mean the alteration of the dock. The sill of the dock would have to be lowered to equal that. The engineer can give you some idea.

1981. How would the development of the canal system affect Limerick?—It would be a very great advantage, and we mean to submit evidence on that point from Mr. King, steam barge owner. He is the owner of steam barges on the canal, on which he has been trading for forty-eight years. He will show you the defects of the present system.

(Chairman.)

1982. Is there anything else that you can tell us?—An estimate as to what the railway would carry in the shape of goods might be of no interest to your Committee, because it would be only an estimate, and,

Mr. H. V. MONAGHY, B.E., M Inst.C.E., Engineer to Limerick Harbour Commissioners, called in; and Examined.

(Chairman.)

2000. How long have you been Engineer, Mr. Monaghy, to the Limerick Harbour Commissioners?—Nearly thirty years.

2001. You gave evidence before the Royal Commission on Waterways and Canals in 1896?—Yes.

2002. We have got your evidence before us now. Have you anything to add to that evidence?—No, I do not think so. I think it is just the same. In fact, the improvement is more necessary to-day than it was then.

2003. What are the defects in the canal navigation?—In my evidence before the Royal Commission, I endeavored to show how communication with the floating dock and the Shannon Navigation Canal might be facilitated. Communication at present, under existing conditions, is difficult, due to flood water, and want of head room under two bridges at such time as the current is least, i.e., at high water, when the passage might be the more easily made. At other times it would be simply impracticable. In order to obviate that, I laid before the Commission three schemes, of which the third and most costly seemed to meet with approval, and which is shown on this ordinance sheet. (Produces.) This scheme is practically a very old scheme, partly completed and then abandoned. My suggestion was to revive and complete this scheme at

(Chairman—continued.)

besides, the construction of the railway would so increase the trade of the port that any estimate that we would make would probably be an under-estimate.

1983. What is your estimate?—At least 200,000 tons of goods would be carried over this line.

1984. What would go by the canal?—The percentage by the canal would not be very much. But if the canal were improved you would have, I should say, 100,000 tons between grain and other cargoes.

Mr. FIELD.

1985. The two things—the improvement of the canal and of the port of Limerick—would help each other and improve the trade of the whole district. With regard to the railway, is not £25,000 a very large estimate for 2½ miles of railway?—That is to acquire the land also.

1986. You have to buy the land?—Yes.

1987. With regard to the canal traffic, what proportion have you to put before the Committee?—The canal between here and Kilsloe is very defective.

1988. Do you think if that were remedied you would get more exports and imports?—Yes.

1989. Are you of opinion that if this large expenditure was undertaken in connection with the improvement of the port it would be justified by the results?—Decidedly.

Mr. LINDSAY.

1990. What is the jurisdiction of the Harbour Commissioners?—The Harbour Board was created by Act of Parliament in 1857.

1991. I meant the area of its jurisdiction?—It goes down to Kerry Head at one side and Loop Head at the other—about 60 miles.

1992. Did it always do that; because the Board of Works had control over the Shannon at certain points?—Only one pier at a few places. We have got complete powers.

Colonel GRETTON.

1993. What is the delay in lightening vessels?—It might be forty-eight hours, sometimes more. On an average it would be about twenty-four hours.

1994. Sometimes it is forty-eight hours?—Yes.

1995. What is the longest delay?—We have had delays up to about three days.

1996. Up to three days?—Yes.

1997. Have you had any longer delays?—I cannot remember anything longer, there may have been.

1998. The canal barges are loaded from vessels alongside the quay?—No. The goods are carted to the canal harbour.

1999. Where is the canal harbour?—It is about a mile and a quarter away from the docks up the river.

(Chairman—continued.)

a probable estimate of £30,500. Needless to say this sum would now require to be largely increased.

2004. Do you consider if that work were done that it would repay itself?—That is a question that I am not in a position to answer. I think it would be likely to pay in the future. I do not see why it would not, but at the present moment I cannot form an opinion.

2005. There is nothing further that you can say in regard to that matter beyond what appears in your evidence before the Royal Commission?—No, except that I think it would be desirable to complete that scheme.

Mr. FIELD.

2006. Is it your idea that if the scheme were carried out you could utilize the finished portion and connect the canal with the river satisfactorily?—Yes, distinctly.

(Chairman.)

2007. What have you to say in connection with the railway?—The proposed connection of the port with the railway system is by the construction of a short line commencing at the south-eastern corner of the floating dock, running along the southern side of the dock and thence crossing the Dock Road on "the level" at or about the point of intersection of the Dock Road

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Mr. MONROE.

[Continued.]

Chairman—continued.

Road with the county borough boundary, where it is shown on the ordinance map (Fradon's). The line will curve round the western side of the meadow and continue along the low ground on the north side of the Ballynaclogh River, crossing the main road at Ballynaclogh Bridge, either on "the level" or by carrying the line under the road as may be decided on later, and still continuing the course along the low ground by the river will affect a junction with the G.R. and W. Railway at or about the level crossing in the townland of Rosheen. The total length of the proposed line will be about 2½ miles, and the approximate estimate £25,000 inclusive of land purchase, but exclusive of rails, for which no provision can be made at present.

Mr. ALFRED KIRK, Steam Barge Owner, Limerick, called in; and Examined.

Chairman.

2011. You are a steam barge owner working on the canal, I understand, for the past 48 years?—I am, sir.

2012. You can tell us something about the defects in the navigation between Lough Allen and Carrick-on-Shannon?—Yes. Lough Allen is the source of the Shannon, as you are aware. It is a small lake—seven or eight or ten miles across. Near it are the Arigna coalfields, and there are a lot of minerals in the district. You come out of that lough and you get into a bit of canal at Drumshambo. There is a bridge that goes over that canal. Before you get into that, there is a figure of eight—a lot of rocks that have to be got rid of. The coal mines are only about two miles from where the present harbour is. That harbour would have to be improved. The bridge at Drumshambo would have to be widened. It is only made for the ordinary little canal boat. You come along and there are two miles of that canal and you get into Droon-lough Lough.

2013. What draft of water can you bring on your canal boats?—Thirty years ago I took cargoes of cement to Drumshambo on a fifty-ton barge, and I took 40 tons. If I had that boat to-day she would not bring 20 tons through the canal.

2014. What depth of water can you count on?—5 feet 6 inches or 8 feet 9 inches as much as you can rely on. From Carrick to Killaloe is a long stretch with five good large locks. The smallest would be the Albert Lock.

2015. What size is it?—About 100 feet long by 20 feet wide.

Mr. Keating.

2016. It is 110 feet long?—It is not 30 or 40 feet longer than my boat.

2017. What is the width?—I suppose it would be about 20 feet wide. There is no difficulty in having plenty of water if the sluice gates were properly worked.

Chairman.

2018. What is the draft from Carrick to Killaloe?—Six feet. You can comfortably work a 100-ton barge at the present day from Killaloe to Carrick.

2019. What are the defects in the river from Killaloe to Limerick?—A great many.

2020. How many locks have you got?—Ten locks.

2021. What is the draft of water?—4 feet 10 inches the Board of Works allow, but I have always estimated 5 feet. That would be for the winter time.

2022. Are there many bridges?—Six or seven.

2023. Are they sufficiently high for the traffic?—Yes, for the boats that trade there. There are a few of the bridges on the low side, but they do not interfere.

2024. You can load your barges up full in the winter time, and bring them down?—You could, sir, continually, but not in the summer time. You could work a 50 or 60-ton barge during eight months, but in the other four months you must bring your load down to 15 or 20 tons for want of water, which could be there if the sluice gates were properly utilised.

2025. In the heads of evidence that you have handed in you say:—"Improvements required to allow easier passage to be navigated carrying, say 120 tons cargo from Lough Allen to Limerick Port."—Yes. I think myself that five or six of those locks from Killaloe to Limerick would require to be interfered with. Five or

Chairman—continued.

The construction of the line will be easy, neither heavy cuttings nor embankments will occur. Most of the land is alluvial, and streams where crossed may be easily diverted. The location of the railway is shown on the ordinance map.

Colonel Grelson.

2026. Can you inform the Committee what depth of water there is between Limerick and Beigh Castle?—From 17 feet at the dock to 20 feet at Beigh Castle.

2027. Is there any less depth in the channel than 17 feet?—No, i.e., at high water, neap tides.

2028. Do you know how far it is from Limerick where the big steamers can be at all times?—Sixteen or seventeen miles, at Beigh Castle.

Chairman—continued.

six of them should be made larger and widened. The Lough Allen bit of water canal has to be re-made from start to finish as far as Beigh Bridge.

2029. Who is the authority on the Canal between Killaloe and Limerick?—The Board of Works.

Mr. Hannas.

2030. Have they a representative here?—He is not in Limerick.

2031. He is not present in this room?—No.

Mr. J. F. Power, Secretary to Harbour Commissioners. I can ring him up if he is required.

Mr. Field. We ought to have a statement from him, Mr. Chairman.

[Interim.] When you come down from Carrick to Tullamore it is there that the Royal Canal connects with the navigation, and when you pass Athlone and down to the Shannon harbour, it is there that the Grand Canal connects with the navigation.

Chairman.

2032. It would be a benefit to you if you had a better waterway between Killaloe and Limerick?—Decidedly, sir.

2033. You were going to say something about the improvements required in the Port to develop canal traffic to the Floating Dock?—Yes, sir. Limerick is a left-handed business without having the canals connected with the docks. That scheme was put before the Royal Commission for the linking up of the canals with the docks, and it is the only feasible scheme.

2034. That is the third scheme referred to by the engineer in his evidence?—Yes, sir. The only thing I see wrong is that there will be very little headway left under two of the bridges for a boat drawing 5 feet of water passing down.

2035. The engineer dealt with that?—Yes.

Mr. Field.

2036. Do I understand from your evidence that the Arigna coalfields and the other minerals in that district cannot, in your judgment, be utilised to the extent that is required in the national interest unless the whole of this canal is dealt with in the manner you suggest?—The district is practically held up for want of the means of getting it in.

2037. You cannot, under existing conditions, develop the coal or other minerals?—That is so.

2038. Have the Board of Works co-operated with any suggestions you have made?—No, sir, they are quite well aware that improvements are required.

2039. Your suggestion is that the canal improvement ought to go right down from Lough Allen to Limerick?—Yes.

Mr. Keating.

2040. Would the output of the Arigna mines be increased in volume if your suggestion were carried out?—Coal from the Arigna mines would be brought to Limerick for all local purposes, and other minerals put out in that district could come directly from Lough Allen on to Limerick for shipment if improvements were made in the waterway.

[Chairman.] We are very much obliged to you for your evidence.

2041. Yes.

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Mr. QUINN.

[Continued.]

Mr J J QUINN, Secretary to the Limerick County Council, called in; and Examined.

Chairman.

2038 You are Secretary of the County Council, Mr. Quinn?—Yes, sir.

2039 What can you tell us on the subject into which we are inquiring?—I would like to draw your attention to the following resolution unanimously passed by our County Council at its meeting on the 1st September, 1917, in reference to the proposed railway extension to Limerick Docks:—"That in view of the great importance to the county, as well as to the city and port of Limerick, of the extension of the railway system to the Limerick docks and quays, which would cheapen the transport of farm produce and the imports of fuel and other necessities, this Council, recognising the necessity of united action—as all classes of the community are interested—and feeling that the project can be best carried out by such union, suggest that a conference be held to consider this matter in all its aspects, and that each of the following bodies be invited to send representatives, viz., the County Borough Council of Limerick, the Harbour Board, the Chamber of Commerce, the Trades Council, the Federated Labour Council, the Employers' Federation, and the County Council, the representatives to meet at an early date." The Conference came together,

Chairman—continued.

and after several meetings unanimously adopted the following resolution, proposed by Sir Alexander Shaw and seconded by Mr. J. Cronin, President of the Trades Council, on the 14th December, 1917:—"That this Conference endorse the views expressed by the resolution of the County Council of the 1st September, 1917, and having considered the matter from all points, hereby resolves that the proposed extension is of vital importance to the present welfare and future prosperity of all classes in the city and county." It is just as well, sir, that this committee should know that there is a united feeling in favour of these improvements among all classes in Limerick City and County. The question of the canal had not seemed development at the time the Conference was meeting, and I am absolutely certain that if my Council had an opportunity of recommending the improvements to you that they would have done so unanimously.

Mr. Keating.

2040 The matter might be again referred to the Conference. The only matter dealt with by the Conference was the railway extension?—Yes.

Mr. LOUIS MORLEY, Managing Director of the Limerick Steamship Co., Ltd., called in; and Examined.

Chairman.

2041 You are managing director of the Limerick Steam Packet Co., Mr. Morley?—Yes, sir. Before the war we were running steamers from the Continent here, Limerick was, I think, if not the first, the second distributing port in Ireland for sugar. At that time we were running steamers from Hamburg and Antwerp, and very large quantities of sugar were imported into Limerick, but all along we have been handicapped by want of facilities in the way of railway connections with the docks. I am speaking from memory, but Waterford imports in a year roughly 500,000 tons of coal, and sends it as far as Killalea, which is only 14 miles from Limerick, and Cork also sends up coal to Newcastle West and all that neighbourhood. This is against the imports to Limerick of about roughly 90,000 tons. It is almost inconceivable that a town like Limerick, with a river like the Shannon, should not be connected with the railways, while small places like Foynes, Fenit and Kilrush are. It is only people who are handling the traffic who can see the difference in not having railway facilities at the port. I had under consideration the running of a direct line of steamers from the States to Limerick as a distributing centre, but I could not think of such a proposal while there was no railway connection with the docks. It would be impossible to distribute from here, having to cart all your goods out of a 5,000-ton steamer to the railway stores. Another point I would like to bring before you is what might be called the different feeders on the Shannon. Of these small places on the Shannon take, for instance, Ennis. The Fergus runs through the town, and boats could go up as far as Clarecastle, which is about a mile and a half from Ennis, which means the goods have to be taken out of Clarecastle and carted up to Ennis, instead of carrying the goods right into the heart of the town by water, as the Fergus runs right through the heart of Ennis, and Ennis is a big distributing centre for that part of Clare. The cost of making the river suitable for navigation for small boats would be low. In addition there is the Aghroon river and the Máigue. They would all make good feeders for Limerick. The trouble is with these small places that one or two individuals may handle all the goods that come by water, and they may neglect the harbour deepened, and I am afraid that the different public bodies would be of opinion that it would be for the individual's particular benefit and not for the community at large, whereas the direct water transit benefits indirectly the community at large. A number of these places have not the money or the funds to get their harbours dredged so that vessels of an economic size could get alongside, and this is an outlay that should be borne by the State.

2042 Do I understand you would still consider putting on a direct line of steamers from the States to Limerick if there was railway connection with the docks?—I could not guarantee it. I don't want people

to come afterwards and say to us, "We have built the railway you required, and now put on your steamers as proposed. Before the war I had considered everything in connection with this service. In fact, I had two steamers in Australia which I had intended to bring home for this particular trade, but owing to trouble with the Commonwealth authorities I had to dispose of those steamers. There is no doubt that a very large portion of the traffic which comes to Belfast direct from the States and also from Liverpool could be distributed here with some considerable saving advantage to the public."

2043 If you had these steamers on, and the canal was improved so that canal boats would come down and lay alongside?—You would have the whole country open to you in that case.

2044 Are 9,000-ton steamers light draught boats?—You would have to select your steamers to suit your draught, and you would have to endeavour to run to tides. You might have to lighten now and again. With regard to piers, I am sorry to say that when they are being built by the Congested Districts Board, especially round the coast, they take into consideration only one point and that is the ability for fishing boats going alongside and getting their fish on the pier. Once they have done that they seem to be satisfied, but in a great many cases they have not taken into consideration the fact that the fish has got to be shifted for the purpose of shipment, so that while they provide for the fish being landed on the pier they do not provide for the fish being taken away, as the piers are too small. The expenditure of a little extra money on these piers would have enabled steamers to come alongside. There is one pier at Galway where it is dangerous for even fishing boats to come alongside. It is built on a rock, and I have seen three boats upset there myself. I think, sir, that is all I wish to say.

Mr. Haden.

2045 I just want to ask you this question: You heard the evidence with regard to the volume of traffic that would be likely to be carried over this new line of railway if constructed. Have you an estimate as to what would be the increased volume that would be carried over that new line?—I do not think I would like to give an opinion on that matter. I would like to be sure of my facts.

2046 I don't want to pin you down to a particular figure.

Mr. J. P. Power, Secretary to Limerick Harbour Commissioners [Is would probably mean 500,000 tons of traffic additional.]

Mr. Field.

2047 Are you prepared, Mr. Morley, to state that, if the docks were connected with the railway in Limerick,

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Mr. MOULEY.

[Continued.]

Mr. Field—continued.

you would favourably consider the question of running a line of steamers from the States to Limerick?—I would. Of course, I am only one individual, and cannot guarantee what view my directors would take. Personally, I would favourably consider it.

2048. I do not want to bind your company at all by what you state?—I say certainly, yes.

2049. And until the railway connection is made with the docks you cannot take the matter into consideration?—No.

2050. You are rather of opinion, I take it, as far as your experience is concerned, that in the event of the railway being built here it would pay for itself in a short time by increased traffic?—Certainly. If it did not pay directly to the railway it would pay indirectly in the amount of employment it would bring into the town.

2051. With regard to the harbours, do you think that the Government ought to provide another dredger and go around and dredge all these little harbours that cannot afford to do the work themselves owing to the want of funds?—Yes.

Mr. Hanson.

2052. You have considerable experience of the whole shipping conditions both seawards and inwards?—Yes.

2053. Do you agree with the evidence given by Mr. King in reference to the waterways?—Yes.

2054. And the evidence of the Harbour Commissioners with regard to the development of this port?—Yes.

2055. Do you think a point lower down the Shannon than Limerick itself would not tend from the national point of view to develop navigation?—You are referring to Foyens.

2056. Take any point?—We have heard a great deal about Blackod Bay and all these places, but Foyens, in my opinion, is the port for an American service—a service *à la carte*. As a distributing centre I think Limerick better on account of the canal and the trouble of getting these small canal boats down to Foyens in bad weather. In fact, they are not suited to go down.

Mr. JOSEPH BOCKNER, Representing the Limerick Trades Council, Examined.

Chairman.

2055. You represent the Limerick Trades Council?—Yes.

2056. Would you tell us what is the feeling here among the Trades Council as regards the railway connection with the docks, and as regards getting better canals?—The feeling is that we are entirely in favour of the suggested improvements.

2057. You have heard the evidence that has been given here this morning, and are you in agreement with it?—Yes, I am quite in agreement with it.

Mr. E. J. LANE, President, Limerick Chamber of Commerce, called in; and Examined.

Chairman.

2071. You would like to give us some evidence, Mr. Lane?—I would like to say that I have been connected with the Chamber of Commerce for a great many years, and that we have, on many occasions, considered the question of the railway extension to the docks and the connection between the dock and the canal. We have, on many occasions, taken considerable trouble to get expressions of opinion from public bodies in the city. We have done everything we could do, passing resolutions from period to period. In the period of Sir Alexander Shaw's presidency of the Chamber of Commerce the question of the effect which the con-

Mr. Hanson—continued.

2057. Some people think that Taybert is a better port for ocean boats?—It is totally unsuitable. You have already made a harbour at Foyens with 33 feet of water, and it is only a question of extending the pier. You have a railway connection both by Roslars and Dublin. In Blackod Bay you have only one connection.

2058. Supposing that some place in the mouth of the Shannon was made a port for big ocean liners, what would you do with your cargo?—You would have to distribute the cargo, I suppose, from that port.

2059. Cargo for England?—I do not think that is altogether practicable. My own impression is that any service should rather be on the principle of a mail and passenger service, which should be landed at Foyens. I have seen papers stating that steamers leaving Foyens on the Wednesday morning should be in Newlandland on Saturday morning or evening. With regard to the question of cargoes, except Ireland could take the majority of the cargo that is brought in, I do not think the distribution to England would ever be feasible or practicable or profitable.

Mr. Lindsay.

2060. You spoke of a *de luxe* service from the States to Foyens?—Yes.

2061. Would that not rather imply no goods traffic?—Yes, that is what it would come to.

2062. Could they give a return cargo?—Well, they could. There is a very considerable quantity of fish, and there is a good deal of hides and skins.

Mr. Field.] We want to keep the skins and hides at home in future.

Mr. Lindsay.

2063. What you really want is to get the quickest connection between New York and London?—Yes.

2064. Do you consider that a boat coming to Foyens rather than to Blackod would give a quicker communication?—I think so. You will save one day from London to New York, and $\frac{1}{2}$ days to Chicago and Western towns.

Mr. Field.

2065. Does your Council approve of the railway being connected with the docks and quays?—They do. It was the President of our Council who proposed the resolution at the conference referred to by Mr. Quinn.

2069. You have no objection to it from the labour point of view?—No.

2070. You think bringing in more goods will give you more labour?—Yes.

Chairman—continued.

section of the dock and the canal harbour would have on the city was fully considered. I am in complete harmony with the evidence that has been given here to-day. Some of it has been given under the auspices of the Chamber of Commerce. I have attended the meetings that have been called by the Secretary of the County Council advocating that the port should be connected with the railway. The Chamber of Commerce are in complete harmony with the views expressed by the various gentlemen who have given evidence here to-day.

Chairman—continued.

all the maps and plans and books in connection with it, and I am of opinion that it would be of immense benefit to the city and to the surrounding country if the docks and railways were linked up and the canal brought into connection with the port. The Corporation are in thorough agreement with both projects, and

Mr. THOMAS DUNNEILLAN, Borough Councillor, representing Limerick Corporation, called in; and Examined.

Chairman.

2072. You have heard the evidence given this morning?—I have, sir.

2073. Are you in agreement with it?—Yes; in thorough agreement. For a very long number of years, as a public man I studied the whole question with regard to the internal navigation of Ireland. I have

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Mr. DONNELLAN.

[Continued.]

Chairman—continued.

and with any movement that would tend to the progress and development of the country.

Mr. Lindsay.

2004. In the event of this connection between the docks and the canal being effected it may be found necessary to raise one or two bridges?—Yes.

2005. You realise that possibility?—Yes.

2006. Would the Corporation be prepared to pay the expenditure?—That has been discussed before, and I

Mr. RICHARD P. O'CONNOR, Borough Councillor, Limerick, called in; and Examined.

Mr. O'Connor.] I differ from my friend who spoke before me. I am not in favour of saddling the city with the cost of lowering or raising bridges, because I believe it is the duty of the Government to do these things. I want to say that we working men are not ignorant of the fact that the predominant partner owes Ireland over £300,000,000.

Chairman.

2007. We are not going to discuss that. What we want is information in regard to improvements in transport. If you knew that by spending one shilling you would make two, you would be one of the first, I am sure, to vote for that shilling?—I am not quite sure that I would. As a member of the Corporation, as a worker, and as President of the Mechanics Institute, I should like to be quite sure that there is good both in this movement. We working men feel that the predominant partner?—I am not speaking politics.

2008. This is not a political gathering. We are here solely for business—to get information, and if there is any information you can give us we will be glad to hear it. We are getting information in the hope that steps may be taken by the Imperial Parliament to try to develop the transport facilities, not only here, but all over the country?—I consider it my duty, representing the workmen of the city, to know if this

Mr. GEORGE DE L. WILKIN, Lissenfield Estate Office, Ennis, Co. Clare, called in; and Examined.

Chairman.

2009. You wish to give some evidence, Mr. Wilkin, in reference to Kilrush?—Yes. I am afraid we are in the unfortunate position of not having heard of your important Committee until a few days ago. It is quite true that your Secretary sent an advertisement to the *Kilrush Herald*, but unfortunately it was not seen by anyone interested in this inquiry. Two other papers in which the advertisement was inserted are Limerick papers and do not circulate in Clare. I have been interested in the policy of the Government for rural development, and your inquiry would be of valuable assistance to it. When I heard of your Committee I wrote to Mr. Glynn, one of the most important traders in the Kilrush district, and asked him to assist in getting together some evidence for you, but we were totally in the dark. This is very unfortunate, and the most we can do is to put a few facts before you and to impress upon you the absolute necessity for transport improvements in Kilrush, which is the centre of a very important district in Clare. Owing to the short notice we have received of this sitting, we were not able to get together even proper maps, but I have brought a little book showing the harbour and everything connected with it. We would be able to supply you with fuller details if we had more time. No one in Kilrush heard that we might come to you until nine o'clock on Saturday night, and the postal arrangements are of such a nature that it was impossible to communicate in time with people from whom we were anxious to get information to lay before the Committee. Our time was very limited, but if it is necessary for you, or some other Sub-Committee, to investigate things later on, we would be in a better position to lay evidence before you.

2010. There is no question of later on. I quite understand your difficulty?—Perhaps you would allow us to put a few facts before you now. I would like to show you this map. We have a narrow gauge railway from Ennis to Kilrush, and it goes on as far as Cappagh Pier. This pier would be improved by being extended

Mr. Lindsay—continued.

behind myself that the Corporation will be prepared to bear portion of the expenditure, because they consider that a State grant should come and that the Corporation would bear their part.

Mr. Field.

2011. You are of opinion that the Corporation would do what they can?—Yes.

Chairman.] There seems to be general unanimity here in favour of this scheme.

Chairman—continued.

is a matter of good faith or not. We workers, at all events, feel that we have never been treated properly by the predominant party. I am not speaking politics, and I want to know if this is a matter of good faith or whether it is merely drawing a red herring across the track.

2012. That is a matter that you make up your own mind about. We know ourselves why we are here. We want to get information, and we look to you and to your friends to help us, and in a good movement?—We have always helped in good movements. I would recommend the Members of the Committee to get "*Leathaire na h-Eirinn*"—the Irish Year Book, which was compiled by Mr. Arthur Griffith. You will find in it an interesting article about canals.

Mr. J. F. Power, Secretary, Limerick Harbour Commissioners.] Mr. Hannon asked Mr. Morley a question as to Limerick and Foyens as a distributing centre. In connection with that I would like to say that the port of Limerick is the most inland of any in Ireland, and consequently one of the best distributing centres. It is the most inland port, and the tendency is to get inwards as far as possible.

Chairman.] I think we are fully seized with all that.

Mr. Power.] Mr. Hannon suggested a port nearer to the sea.

Chairman—continued.

out into the Shannon, thereby making a larger number of berths. There is also a very important creek in Kilrush which could be deepened with great advantage to the traders. Small vessels can come up to the entrance of the town by that creek. There would be no difficulty in extending the pier at Cappagh. By extending the pier larger vessels could come in. I may mention that this district went in largely for the cultivation of flax in the past, before the famine, and there are other industries in the district which could be developed if there were facilities of transport. The streets which pave the streets of Limerick and other large cities have come largely from the district, and there are also lead mines.

Chairman.

2013. By our terms of reference we are limited to ports and canals. Our Main Committee has a wider reference. We would be glad if you sent us in a full statement?—Yes, we will be glad to put full evidence before you.

Mr. Hudson.

2014. What is the distance by rail between Ennis and Kilrush?—48 miles.

2015. And it is all a narrow gauge?—Yes, the whole way. And unfortunately it is not as satisfactory as it ought to be.

2016. Could it be widened?—Yes, because there are no serious cuttings on the line.

2017. There are no many overhead bridges?—I don't know that there is an overhead bridge anywhere on the line—oh, yes, there are two or three. There would be no difficulty at all in widening the line. The overhead bridges were made wide enough for a broad gauge line.

2018. Can you tell if any diggings were made with regard to lead?—There have been several mines opened. There was one particularly at Ballyhickey. That was

* Statement not furnished.

x 2.

unfortunately

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Mr. WILLIS.

[Continued]

Mr. Hudson—continued.

unfortunately flooded a number of years ago, and the company were broken by the flood. Some £50,000 worth of ore was taken out of it.

Mr. W. J. GLENN, Miller and Trader, Kilrush, called in; and Examined.
Chairman.

2090. You have got a steam mill at Kilrush, and you do a large trade. Can you tell us something about your facilities for the import and export of stuff?—We suffer very considerably for want of water at Merchant's Quay, near Kilrush. At neap tides we have not more than 8 feet 6 inches. The quay is quite convenient at the foot of the town. Cappagh Pier is about a mile and a half from the town. We want to get the creek deepened so that ordinary vessels can come up drawing 13 or 14 feet of water at ordinary tides. It would require a very small outlay to accomplish this improvement. The quay would want to be panned, and not quite a mile would want to be deepened—a narrow passage.

2091. Where do you lighten for Merchant's Quay?—We don't lighten. You have to wait for the tide or lighten at Cappagh, a mile and a half away.

2092. What is Cappagh Pier used for?—Principally for coal coming in. Cappagh Pier, if it were extended about 300 feet, would be fit for any vessel to go alongside. A short distance off the head you have 21 feet of water at low-water tide. At the head it is only about 8 feet.

2093. Do you know the amount of tonnage that you can get there in the year?—I cannot tell you. We have no facilities. The narrow gauge railway is a block also.

2094. What facilities have you got on Cappagh Pier?—None.

2095. There are no cranes?—Yes, a private one.

2096. The narrow gauge railway runs right across the head of the pier?—Yes, and the pier is peculiarly made. You lose 20 minutes in every hour discharging a boat of coal there.

Mr. Fidd.

2097. What lunatic devised that?—I won't tell you. You lose 20 minutes discharging a coal cargo out of every hour.

Chairman.

2098. What is the size of this pier?—There are four berths—three decent ones. The size is roughly 170

Mr. F. J. O'DONNERTY, Shannon Steam Saw Mills, Kilrush, called in; and Examined.
Chairman.

2114. You have heard the evidence just given by Mr. Glenn?—Yes, sir.

2115. Do you agree with it?—I endorse all he has said. I go a little further in regard to the development of Cappagh. I have always been an advocate for making Kilrush a transatlantic port, notwithstanding all that Mr. Morley has said in regard to Foyres. I have for many years taken an interest in this project, and I reported to the Canadian Government on the matter some 15 or 20 years ago. If you study the map, it seems to me there are possibilities in the way of having a transatlantic port at Cappagh. There is at least a mile of frontage, and if a pier were constructed and a stage thrust out, similar to that in Liverpool, you would get a sufficient depth of water, and the access from the Channel is unquestionable.

Reverend JAMES GLYNN, P.P., Kilmarry Glebe, Mullagh, Co. Clare, called in; and Examined.
Chairman.

2112. We are very glad that you have come here to give us evidence. I have, however, seen the heads of the evidence which you propose to offer us in reference to Seafield Pier, and I don't think that it comes within our terms of reference, because the reference limits us to ports and canals?—We are a port.

2113. What trade do you get through the port?—This year we saved 1,200 or 1,500 tons of kelp, and, as you know, that has largely gone up in value. It averages nearly £11 a ton, and the poorest people on the coast lose from 25 to 30c per ton because they have not been able to take it by water carriage. Sea-

Mr. Hudson—continued.

2089. I want to know something about the depth of water at Kilrush?—Mr. Glynn will be able to give you evidence on that point.

Chairman—continued.

2099. You have got a steam mill at Kilrush, and you do a large trade. Can you tell us something about your facilities for the import and export of stuff?—We suffer very considerably for want of water at Merchant's Quay, near Kilrush. At neap tides we have not more than 8 feet 6 inches. The quay is quite convenient at the foot of the town. Cappagh Pier is about a mile and a half from the town. We want to get the creek deepened so that ordinary vessels can come up drawing 13 or 14 feet of water at ordinary tides. It would require a very small outlay to accomplish this improvement. The quay would want to be panned, and not quite a mile would want to be deepened—a narrow passage.

2100. What imports do you get?—Coal.

2101. What do you get into Merchant's Quay?—All kinds of commodities.

2102. That is for local consumption?—Yes, up to Ennistymon and all the way to Ennis.

2103. What do you export?—Eggs and hides. Long ago we used to ship a tremendous quantity of flags.

2104. Do you ship any home-grown timber?—Not at present.

Colonel Giffen.

2104. The traffic done in Kilrush is local traffic?—Yes.

2105. For the district and West Clare?—Yes.

2106. Is there any possibility of extending the traffic if facilities were obtainable?—Yes.

2107. Would the traffic become more than a local traffic?—Yes.

2108. How?—We could tap Ennis, for instance. We cannot get stuff beyond Ennis at present because the "narrow gauge" only takes it to Ennis.

2109. Is there any shelter in Cappagh?—Yes; vessels are safe from westerly winds.

2110. Is there shelter from southerly winds?—Yes. I never knew wind or sea stop vessels discharging.

Mr. Fidd.

2111. The principal thing is to extend the pier?—Yes, and to deepen Merchant's Quay.

Mr. Hudson.

2112. If the "narrow gauge" were broadened, what traffic would there be outside local requirements?—We would get a considerable quantity from Ennis that goes via Limerick.

2113. What kind of traffic?—Hides, eggs, kelp, seaweed and flags. At present we are tied up

Mr. F. J. O'DONNERTY, Shannon Steam Saw Mills, Kilrush, called in; and Examined.
Chairman—continued.

2115. You have got any amount of water outside the pier?—Yes. If a suitable harbour was made near Cappagh Pier.

2117. You think that would be quite protected for transatlantic steamers to go into?—Yes. With regard to railway facilities I would like to see a new broad gauge railway from Kilrush to Ennis.

2118. What distance would that be?—27 statute miles to Ennis, or 50-51 miles altogether to Limerick—an hour's run.

2119. How far is it from Limerick to Rosslare?—I don't know.

2120. Have you got a copy of the report that you made to the Canadian Government?—Yes.

2121. Would you give us a copy of it?—Yes. I answered questions they asked me.

Chairman—continued.

Seafield Pier is both ill constructed and badly approached in the Channel entrance. It is near the best of the fishing grounds on the west coast. The currenths largely used can only at rare stages of the tide either go to sea or return. Coal is found in Seafield and Quilly, and at Cahernish, where the coal seam abuts on the sea. The coal is burned at the local forges, and it is also plentifully found in Mount Chellan. The two former seams are within an English mile of the existing railway, and the latter is five miles away.

* Copy not supplied.

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Reverend JOHN GLYNN.

[Continued.]

Mr. Field.

2124. The pier is not connected with any railway station.—Not yet. The pier was built some time ago by the Board of Works, and they forget to make an approach to it. Some time ago we called their attention to this defect, and they sent down an engineer, who was specially connected with the construction of piers and harbours, and he inspected the place about nine months ago. He recommended the deepening of the approach to the harbour by 4 feet and the widening of the approach by 30 feet. That would mean an expenditure of £3,000 or £4,000, and the Board of Works were willing to do a bit in the matter, but unfortunately some of the piers on the coast of Clare belong to the Congested Districts Board, and it is not easy to get a Board in Dublin to work over 100 miles from their base. They are in charge of these piers for a long time, but they are not doing what they ought for some of the ports.

2125. Would you tell the Committee what water you have got up to the pier?—At high-water tide from 8 to 10 feet. At low water it strands out almost completely. There was a fierce earthquake about 800 or 900 years ago that submerged 15 townlands and hundreds of people. The old line of the sea is marked by the fishermen. You have 30 or 40 feet of water there, and it is sheltered by Milton Island. The pier could be made useful for many purposes. We could export seaweed, for instance. The kelp we get has been analysed and returned 33½ per cent. of potash. The poorest people on the coast of Clare are losing 30s. a ton by the fact that they have not water carriage. They could export seaweed, which is very valuable as manure and for many other purposes. All that is rotting there before our eyes—thousands of tons. An expenditure of £3,000 or £4,000 would enable boats to get into the port. Yesterday nine fishing smacks, I suppose from Scotland or England, were reaping a most bountiful harvest within four or five miles of our coast and we could not touch it.

Mr. Field.

2126. You could not touch it?—No; if we could we would be millionaires.

2127. Are there many boats?—There are carriages. In the present condition of the approach to the pier nothing else would suit. If that pier had been deepened even by 4 feet it would be a great advantage, as motor boats and steam trawlers could enter, but we have not yet got it done. The report of the Board of Works is there.

2128. I understand you believe it would be very useful if the necessary dredging were done?—It would be more than dredging. They would have to cut through some gravelly rock, but it could be done for the sum I mention, £3,000 or £4,000. I think it would be no harm for this Committee to look into the question of the small harbours as feeders from the large ports.

Chairman.

2129. You are three-quarters of a mile away from the railway?—Yes. I would like to say that I am not personally interested in the improvements I have suggested. I am only interested for the benefit of the population on eight miles of seaboard. We have an abundance of turf. The large and good quality turf logs in West Clare could easily be made to serve the interests of the people in East Clare by properly constructed turf tracks and turf towns. 800 to 1,000 acres of turbary could be made available and serviceable alike to the exporters, to the buyers, and the railway. The carriage of turf by train would lighten the burden of taxation of the railway, which is guaranteed by the ratepayers.

2130. It is a traffic that railways don't like to handle, as a rule?—But they take our money. This is a guaranteed railway.

Mr. Field.

2131. Was any effort made to try and work the coal mines?—No; not in recent times.

2132. Have you made any representation to the Coal Controller and to any of the authorities about it?—No; not yet.

2133. Don't you think it is about time?—Yes; we mean to do it.

2134. Your evidence is that if the facilities were there you would have an enormous output of kelp?—Yes.

2135. Then you want turf carried by the railway?—Yes.

Mr. Keating.

2136. In view of the urgent necessity for increasing the food supply, have you anything practical to suggest?—There are 800 houses in my parish. Every house has grown increased potatoes, wheat and barley. Last year the potatoes were selling at 4½d. a stone, and some of them went useless in the pits, whereas if we had a pier we could export them. If you could assist us in carrying out the improvements I have suggested you would be conferring a boon on the poor, and they never fail to give thanks.

Chairman.

2137. I don't want to make any suggestion that we are likely to be able to do anything in the matter, because it is evidently a matter that the Board of Works has got in hand, and I would suggest that you would try to get them to go ahead?—I would rather push an open door, like your Committee.

Mr. Field.

2138. Will you send us in a statement?—I will.*

(The Sitting then concluded.)

* Statement not sent in.

TWELFTH PUBLIC SITTING: WEDNESDAY, 18TH SEPTEMBER, 1918.

At the COUNTY COUNCIL OFFICE, GALWAY, at 10 a.m.

MEMBERS PRESENT:

Colonel John Grotton, M.P.
Mr. Wm. Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.
Mr. P. J. Haughey.

Mr. P. J. Haughey acted as Secretary.

SIR ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

Chairman. My Lord and Gentlemen, I should like to say first of all the reason why we are here. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, to secure effective supervision and co-operation, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements, and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such

places as they may consider necessary for this purpose. We gave as much information as we could to the various ports as to the time we would be able to visit them. To-day we want to get from the people of Galway information as to the facilities that are offered by the port, suggestions as to what could be done to make the port more suitable for the commerce of the place, and while we cannot take evidence in regard to any suggested scheme for a new port we can hear evidence as to why a new port might be advisable here owing to the lack of facilities given by the present port. I should therefore like to start by asking the engineer to the port if he would tell us what facilities exist at present.

Mr. W. N. BIRKS, B.E., Harbour Engineer of Galway, called in; and EXAMINED.

Chairman.

2129 You are harbour engineer?—Yes, sir. I will deal first with the question you put to me as to the present necessities of Galway Harbour. The Commercial Dock that is used at present was originally constructed about the year 1832. The depth of that dock available for vessels at present is only 16 ft.—that is to say, you can only bring a vessel drawing 16 ft. of water with safety, and any vessel drawing over 16 ft. has to be lightened off the goods.

2140 Would you explain the reason?—Owing to the depth. A vessel, say, drawing 20 or 21 ft. has a passage into the commercial dock of only a little over 15 ft.

2141 What depth have you got in the dock?—At high spring tide about 18 ft. As the shipping increased from year to year the Harbour Commissioners found the necessity of providing extra accommodation—greater depth and facilities for bringing in vessels of larger draft than 16 ft. Accordingly about the year 1882 or 1883 they determined to make another deep dock. The construction of the dock was started some time afterwards. Loans were got from the Board of Works amounting to £38,000 and £8,000, and the funds at the disposal of the Harbour Commissioners at the time was something about £13,000. The total expenditure on the dock amounted to about £59,000. There was no return whatever for that expenditure to the Harbour Commissioners because the scheme was never completed. There is a ridge of rock running outside which limits the depth to only 18 ft. The depth of the dock is 20 ft., but, owing to the lack of water in the channel leading to it, only vessels drawing 16 ft. can come in. The works were stopped some years after they were started in about the year 1887 for want of funds. The Board of Works refused to advance any more money. The Harbour Commissioners had no further funds themselves to complete the work, and the dock is lying for close on 30 years without bringing any revenue of any kind to the Harbour Commissioners for the expenditure they have incurred. The want of better harbour accommodation was being more and more felt, and in the year 1913, just before the war, the Harbour Commissioners again applied to the Board of Works and asked them for funds in order to complete the scheme. The Board of Works refused to advance any further money, although the Harbour Commissioners were paying off the annuities on the two loans they had received for years. One of the loans was charged at the rate of 4 per cent. But, as I have stated, the money was refused, and the Harbour Board then applied to the Development Commissioners for assist-

Chairman—continued.

ance. They said, "We have spent £50,000 on this work; we are getting no revenue out of it, and the works are half completed; will you grant us a loan?"

The matter was considered by the Development Commissioners, and they agreed to grant the money necessary, which was then estimated by Sir John Griffith at £61,000. Perhaps I should hand to the report of Sir John Griffith, (*Report Annexed* in C.). You will see the estimate given in 1914 by Sir John Griffith for the completion of the work was £61,000. To make this dock available for vessels drawing between 25 and 30 ft. of water would be of great benefit to the port.

2142 You stated that the Development Commissioners recommended the granting of the loan?—Yes.

2143 Were there any arrangements made for guaranteeing the loan?—As a matter of fact the Development Commissioners asked for certain local guarantees, and the Urban Council were appealed to to give a guarantee. Both the Urban Council and the Galway County Council passed resolutions expressing their willingness to give the guarantee asked for. In the case of the County Council they stated that they would require to be assured that their legal position was safeguarded, and they referred the question to their solicitors. I believe his opinion was adverse to the granting of the County Council guarantee. The following is the minute of the Development Commissioners in connection with the matter:—"On an application from the Galway Harbour Board the Commissioners were prepared to recommend the loan provided substantial local support were forthcoming for improvements, including the provision of proper access to the deep-water dock." So you see the Development Commissioners were prepared to give this money, and the local authorities, so far as they were empowered by law, were also prepared to give the guarantees that were required. One cause apparently why the money was not granted was that immediately afterwards the war broke out. Nothing has been done since this recommendation was made by the Development Commissioners. That, I believe, is a short statement as regards that particular scheme.

2144 What about your railway connection?—The railway communication comes alongside the dock. It is used to a small extent for the fishing trade by the steamer that plies between Arara and Galway, and they load immediately into the tracks. That is the only traffic. There are no dues charged on these boats. The position is that the Harbour Board have received no return in recompense for the £50,000 which has been expended. That I think is all the evidence I

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MR. BINNS.

[Continued.]

(Chairman—continued.)

have to give in regard to that particular question. Perhaps the committee would like to hear something of the history of Galway Port. The mails at one time came into Galway, and I have here the reports of the committee dealing with the Transatlantic service in 1859 and 1860.* I have marked certain extracts. At one time Transatlantic vessels used to trade with Galway, but the size of the ship having increased the trade ceased—the imports of grain and corn ceased, and everything in that way came by rail. There has been no direct ocean traffic into Galway for some years. I am dealing with Indian corn and wheat. The larger cargo vessels ceased coming, and there was a large trade done by rail. The reason I assign for that is that the harbour accommodation was not suitable for these large ships dealing with the corn trade in latter years. There is also no oil trade in big cargoes. We used to ship cargoes directly to Galway, but in latter years all the oil has come by rail. Of these important commodities, there are large quantities imported into Ireland, and they have been coming into Galway by rail for a number of years past. That I attribute to the want of suitable harbour accommodation.

2145. What sort of facilities have you got for the discharging of fish?—The fish come in ordinary boxes and they are discharged from the steamer into the wagons by a small winch. The mackerel trade all comes in boxes. The trawlers bring their fish into the roads, and they have small boats. The fish is packed in baskets, and the baskets are dragged up and sent on by fish trams, mostly to the Dublin markets. The English trawlers fish outside the limits of Aran Island, and I believe there was a considerable fleet of English trawlers for about three months of the year. They bring all their fish direct to England. There are no facilities in Galway Harbour for trawlers to come in and go out immediately. If there were such facilities the fish could be landed here and distributed throughout Ireland. We have very bad facilities. We want a fishery harbour very badly at Galway. If you take the bar there are only four feet on that bar at spring tide, and the small fishery boats draw up to 9 feet. They would be kept four or five hours outside for want of water to get across the bar. I have personally seen boatloads of fish left outside waiting for the tide to come in.

MR. FIELD.

2146. Would that be improved if this £61,000 were granted?—It would be improved decidedly, because the Channel would be dredged out to the roads. Sir John Cullifh's scheme is an extension pier running out to the east side of the dock. There would then be 10 feet more water at that bar than the existing levels, so that boats drawing up to 12 or 13 feet could pass through. The fishing boats could come in, load their fish into trucks, and go off about their fishing again. That would certainly be a great benefit to the local fishing industry.

Chairman.

2147. Is there any other point you would like to deal with?—I think that is all I have to say in regard to the inner harbour question.

2148. Do I understand you to say that the £50,000 that has been expended with regard to the existing harbour is practically useless on account of the rocks that lie outside?—Yes, absolutely useless.

MR. MARTIN McDONOUGH, Chairman, Galway Harbour Commissioners, called in; and Examined.

Chairman.

2172. You are Chairman of the Galway Harbour Commissioners?—Yes, sir.

2173. You heard the evidence that was given by the engineer?—Yes.

2174. Do you agree with it?—Yes, in every respect. Of course, the difficulty here is that Galway was the first floating dock, I believe, that was built in the kingdom. Sailing vessels of nearly any size we can deal with, but in the case of steamers we cannot take them. If we had time to lighten them, as we have in

MR. FIELD.

2149. And the first thing you require to do would be to clear these rocks?—Yes.

2150. Does the railway go down at that side of the harbour?—It runs alongside the quays. Some members of your Committee saw it last night.

2151. What sort of facilities have you got for loading and unloading cargo—have you got steam cranes or electrical cranes?—On that dock we have no facilities whatever.

2152. You have no cranes?—Not on that dock—the deep water dock. There are two hand cranes on the commercial dock.

2153. What is your plant?—We have a ten-ton hand crane and a three-ton hand crane.

2154. Are they movable?—No, both are fixed.

2155. Have you any dredges here?—No, sir. We did some dredging at the entrance of the commercial dock. We spent about a couple of thousand pounds to dredge the dock.

2156. You have no dredger yourself?—No. We got a dredger from the Board of Works.

2157. How would the smaller scheme that has been put forward affect Galway and the surrounding districts?—It would be a great improvement.

2158. How far is Galway prepared to go for the local improvement of the port?—I will say as far as even their resources allow.

2159. How long would this smaller scheme take to accomplish?—Subject to getting plant—we would want a rock-cutting—and if things were normal, I think it might be done within twelve months.

2160. Even if the smaller scheme were carried out would it not have a considerable effect in the prosperity of the port in this part of Ireland?—Yes. Instead of getting all our principal things by rail we would be able to get them in here direct by water, and we would be able to act as a distributing centre.

2161. The improvement of your port would react on the prosperity of the whole of the West of Ireland?—It would, sir.

Colonel GRETTON.

2162. With regard to the estimate of £61,000 that was a pre-war estimate?—Yes.

2163. The expenditure would be more now?—Probably double—at least double. It is practically impossible to estimate at the present time.

2164. What is the nature of the bar?—Immediately outside the bar it is a hard ridge of rock, but that is comparatively small, the other portion is sandy mud.

2165. Would it be difficult to remove?—No. A suction dredger would be sufficient.

2166. Would it take long to remove?—No.

MR. LINDOP.

2167. You spoke of the steamer to Anant?—Yes.

2168. Is that not subordinated by some public authority?—By the Congested Districts Board.

2169. If dues were charged on the Aran steamer it would increase the loss to the Congested Districts Board?—I made a slight mistake. I think latterly there was a small charge on the steamer.

2170. You spoke of oil?—Yes.

2171. Would you not attribute the falling off of that trade to the tank steamers?—Yes.

2172. It is more than a question of draft of water?—Yes.

Chairman—continued.

the case of the sailing vessels, we could deal with them. The largest steamer I have had is 2,500 tons, and I was taking a great deal of risk owing to the present condition of the harbour. We lightened something out of her.

2173. Have you to pay the extra shilling in Galway on account of the slow discharge?—Yes. Now it would cost us about 4s. 6d. to discharge a lighter. The difficulty is that the ships are getting larger and larger. Of course, as regards the grain trade, you know what happened here, some time in the 'twenties, when we had seven or eight flour mills. I saw cargoes of flour delivered from San Francisco at six pence a ton, c.i.f. Galway.

2174. Have you a good road for lightening?—Yes.

2175. You heard what Mr. Binns said about the

£61,000

*First Report (368), dated 22nd May, 1860, from the Select Committee on Packet and Telegraphic Contracts. Report (463), dated 22nd July, 1861, from the Select Committee on the Royal Atlantic Steam Navigation Company.

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Mr. McDONOGH.

[Continued.]

Chairman—continued.

251,000 being necessary to complete the deep water dock?—Yes.

2178 Do you consider that it would cost very much more than that sum at present?—Values, of course, have altered very much since the war. I am certain it would cost twice that amount now.

2179 Do you consider that if this harbour was completed on Sir John Griffith's plan that that would give sufficient accommodation and facilities for the trade of Galway?—I don't think so unless they lengthen that dock. The dock is rather short and there would be the difficulty of getting vessels out of it. You could not turn a vessel in it. There is likely to be a great development in this part of the world. There is no reason why, with the water power we have got, there would not be a great development in Galway.

2180 And you think the harbour could be made deep enough and big enough?—Yes, if the money was there to do it.

2181 Do you say that the actual harbour here could be made big enough in Galway?—Yes, to handle vessels, say, of 4,000 to 5,000 tons, and that would be a long cry from where we are at present.

2182 You think that there would be no good, as far as Galway is concerned, in having a very deep harbour outside of Galway?—I am certain it would be good because then you could handle any ship that comes along. The difficulty is that sometimes you must discharge so many hundred or thousand tons a day. If the vessels cannot come into the quay you cannot do that.

2183 How would you deal with big cargoes supposing there was a transatlantic service?—From the situation, Galway ought to be a very good distributing center. We are practically in the centre of the country and we have railways going North and South.

2184 How would you deal with the cargoes of the big mail boats coming from America?—I could not offer to deal with cargoes of that sort, especially with the knowledge I have at present. You are talking of 30,000 or 35,000 ton boats. I don't know how you could deal with cargoes of that kind. Some I suppose would be up to 40,000 tons.

Mr. Lindsay.

2185 You spoke just now of the great water power you have in Galway?—Yes.

2186 I suppose Lough Corrib gives you an inexhaustible supply?—There are three lagoons.

2187 Do you make your electricity by water power?—Yes.

2188 Your electric light here is all developed by water power?—Yes.

2189 None by steam?—No. I make electric light myself, and it is by water power.

Colonel Griffin.

2190 Has any scheme been considered for deepening the present commercial dock?—Yes. We have been for years trying to get something done. In a place like Galway, there should be a pier at some place where a vessel at any stage of the tide could discharge or load or take on passengers. There is no such place in Galway.

2191 The present dock was built to a depth of 36 feet only. Has it ever been considered that that depth could be increased?—I am speaking of the present commercial dock?—It was considered. I think, before they embarked on the other scheme—the new dock scheme. I think that that dock cost nearly £50,000 in the old days.

Mr. Hanson.

2192 What were the arguments used before the Development Commissioners which induced them to recommend a grant?—We agreed to pay the Commissioners back the money and I think they were going to give it to us at a very small rate of interest or at no interest, and we offered them the security of the urban council and the county council. All the local bodies are prepared to guarantee up to the limits of their powers.

2193 Is it a fact that the whole of the local governing bodies in this County of Galway are practically agreed to work together for the development of the port?—Yes.

Mr. Hanson—continued.

2194 You are, yourself, one of the largest business men in the West of Ireland?—Yes.

2195 And you agree that the development of the Port of Galway and the agricultural prosperity of the surrounding country march together?—Yes.

2196 You are of the opinion also, I take it, that if the Port of Galway had greater facilities that the productive capacity of the surrounding country would be very much increased?—I am.

2197 Can you see in the West of Ireland great evidence of agricultural development?—Yes, distinctly. The farmers are learning what they can do with their land.

2198 And you think there is a new spirit of development?—Yes, it is a different Ireland in this part from what it was ten years ago.

2199 With regard to large cargoes coming into the port, is it not possible if you had overseas cargoes coming in here that they could be transferred to smaller vessels for coast and cross-channel trade?—Yes.

2200 It is your view, as a business man, that the welfare of Ireland would be generally affected favourably by the development of this port?—Yes.

Mr. Field.

2201 You are Chairman of the Harbour Board?—Yes.

2202 Do you think that the want of facilities in your harbour has prevented progress of the city and the surrounding country?—It certainly has, because we cannot import stuff at a low price.

2203 Do you think if you had these facilities that you would be able to induce smaller steamers to discharge sea-borne trade?—I want to see 4,000 or 5,000-ton boats. The little boats would be sure to come.

2204 If those improvements which have been suggested were made, you think you would get overseas boats up to a certain tonnage?—Yes. We would want to be able to deal with 5,000 or 6,000-ton boats.

2205 With regard to that 4-foot bar, as it were, that that prevents a steamer going across?—She has to wait until nearly half tide to come in or go out from the dock.

2206 You told us that there was a spirit of progress—more tillage and more commercial “go” in the West of Ireland than formerly?—I believe there is. I referred a while ago to the case of the Star people who started a mill in San Francisco. They delivered flour here for six guineas a ton. They got broken up and failed, but they broke the millers here before they burst and ever since there has been very little milling done in Galway. The millers in Ireland who were able to hold out have been doing very well for twenty years all over the country.

Mr. Hudson.

2207 I think I gathered from what you said that your scheme is one to meet the requirements of Irish export and import trade?—Yes.

2208 I take it from what you have said that, so far as the Commissioners' scheme goes, you are fully met in every respect by present railway requirements?—I would not say in every respect. I have had a good deal to do with local railways. I have heard people criticize them adversely, but, personally, I have nothing to say against them. I have found them reasonable.

Chairman.

2209 You have no grain elevator here?—No. We have no use for one.

2210 You would require one if you had big grain ships coming in here?—Yes.

2211 I gather that your railroad connection is good?—Yes. We get facilities when we give notice.

2212 Have you any large quantity of stuff that you could export from here if this port were improved?—There could be a cattle trade, and there could be an amount of oats, cattle, pigs and sheep sent. There is also plenty of granite, marble and limestone around here. Unless there was some manufacturing industry, I don't know very much else that could be exported.

2213 If you had a better harbour, do you think it would increase trade?—Yes. Personally, it would mean a great difference to me. At present you are taking a risk if you charter a steamer anything beyond 500 tons for Galway. I have chartered one

2,500

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Mr. McDONNCH.

[Continued.]

Chairman—continued.

8,500 tons, but I have taken the risk of having to pay demurrage.

Mr. Fidd.

2214. You spoke about the cattle trade. What number of hours does it take from Galway to cross the Channel?—You load the cattle in the evening about 4 or 7 o'clock and they are in Dublin at 5 o'clock in the morning. That is the way they go at present.

Mr. T. N. RICHMOND, Secretary, Galway Harbour Commissioners, called in; and Examined.

Chairman.

2215. You are the Secretary to the Harbour Board?—Yes, sir.

2217. Can you tell me something about the financial position of the Board?—The capital expenditure on the present docks amounts to £65,000.

2218. How much do you owe of that?—£12,270 is what we owe at the present moment.

2219. So you have really paid off £53,000?—Yes.

2220. Do you manage dues and charges over the interest?—In or about that, in pre-war time.

2221. And the working expenses?—Yes.

Colonel Gifford.

2225. I would like to know from you, as Chairman of the Harbour Board, if the railways afford the Harbour Board the facilities it requires?—We have never made any request to the Midland Company that they don't try to meet us. They have met us every time.

Chairman.] We are very much obliged to you.

Chairman—continued.

2222. Will you put in the accounts for the years 1912, 1913 and 1916 and 1917?—Yes.

Mr. Fidd.

2223. I understand the Harbour Board are inclined to assist as far as their financial arrangements will allow in the provision of facilities for the port?—Yes.

2224. Would that be on the security of your town dues and your ship rates?—On the ship rates.

2225. Not on the town dues?—Not on the town dues.

The Right Hon. Lord KILLANIN, Chairman, Galway Transatlantic Port Committee, called in; and Examined.

Chairman.

2226. You wish to give us some evidence, Lord Killanin?—I propose, with your permission, to make a few remarks for your consideration in reference to a transatlantic port in Galway Bay. You have just heard the evidence of the Chairman, Engineer and Secretary of the Harbour Board, and I am sure it must be clear to the Committee that the existing port would never be suitable for a transatlantic port, and I hope that however much the Committee may favour that second project—improvement of the existing harbour, they won't overlook the much more important matter—the question as to whether this bay is suitable for a great transatlantic port.

2227. We have got to stick to our Terms of Reference, and the only way we can hear evidence in connection with that project is, if the facilities here are not considered sufficient and it would be very hard to make them sufficient. Having heard the defects in the existing harbour, we will pass on to the possibility of improving that harbour or to the necessity of constructing a new one?—I have drawn up a statement on the second matter which, with your permission, I will read. I am Chairman of a Committee which was formed some years ago in order to bring the question of Galway as a Transatlantic Port before the Government and the public. This Committee is a very representative body. There are on it members of the Dublin Chamber of Commerce and the Corporation of Dublin, as well as representative gentlemen in that locality. Many of them have written regretting that they were not able to attend here to-day, including the Archbishop of Tuam, Dr. Plunket, the Bishop of Tuam, Captain Gwynn, M.P., and Mr. Richard Kelly, K.C. Many members of the Committee are also present to show their interest in the matter, such as Lord Clonbrock, Mr. J. S. Young, Mr. Keogh and others. I may state that the time at my disposal for the peroration of the statement I propose to read has been short. However, since you have in your possession, I believe, a good deal of documentary information on the question, giving statistics, etc., and since you are perhaps here principally as a "view" [my duty] to see rather than to hear, I shall not detain you for more than a few minutes while I run over briefly the main points as they strike me in favour of this scheme of a great transatlantic harbour in the West of Ireland and located near Galway. And first, as regards the Imperial aspect of the question. It is, I submit, a matter of Imperial importance that there should be such a harbour in the West of Ireland as a harbour of refuge and naval base for the special convenience of run-of-war, and also for the safer importation of food and other necessities coming across the Atlantic to these islands. Many Parliamentary Committees, Imperial Conferences and naval experts (Admiral Mahan and others of the highest authority) have for

Chairman—continued.

years emphasised this. The important strategic position which Ireland (especially on its Western side) must fill in any scheme of Imperial defence has been constantly pointed out, and in this connection Ireland has been called "The key of the Atlantic," "The Gibraltar of the Empire." Dominion Primaries (Sir Wilfred Laurier from Canada and the present Lord Mores from Newfoundland) have been so impressed by these and other considerations that they have gone to great trouble to visit Galway for the express purpose of examining its possibilities. But, however favourable and strong and important such views were in the past, current events have, I submit, demonstrated their reality and urgency. The coasting journey round Ireland, on the north and south, has proved exceptionally dangerous during the war. Much loss through submarines in the shipping trade has taken place in those journeys. The construction of a harbour in the West of Ireland has been shown to be a matter of the highest Imperial concern. But the national aspect of the question must also be taken into account. Many of us in Ireland feel (I certainly do) that Ireland has been neglected in Imperial recognition and outlay. We hear of great events and of vast sums of money being spent elsewhere in connection with Imperial matters, but Ireland's claims and needs in this respect have received little attention. Seldom does even a man-of-war visit our western ports, but I have seen a large German fleet in recent years (not long before the war) anchored for many days in this bay. But a change of policy in the Imperial treatment of Ireland, and the existence of a transatlantic harbour in the west, with the life and circulation it could bring into the country and the commercial relations it could convenience and create, would be of immense benefit. I believe, to the economic and social life of Ireland. There is no prospect for the development and improvement of Ireland, which is, in my opinion, more patriotic or more practical, or which could have greater and more far-reaching beneficial results in the national life of the country. But, in addition to the Imperial and National importance of this question, there are the commercial advantages due to the fact that the journey from Great Britain to America by this through-Ireland route, as distinguished from the present round-Ireland route, would be the quickest. It would be quicker than all other routes because (1) the distance is, in fact, shorter; (2) steamers leaving a bay in the West of Ireland, such as Galway's, will be immediately in the open sea and ocean and will not be delayed by the large coastal traffic which crowds the Irish sea and the channels between Great Britain and Ireland, and which necessitates slow speed. Nor will they be delayed by the logs which occur in those narrower waters. (3) If there is not a terminal port in Ireland, then the quickest service running between Great Britain and America must call in Ireland for the convenience of Irish

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The Right Hon. Lord KILMER.

[Continued.]

Chairman—continued.

Irish passengers and mails and freight, and that is a great cause of delay in the total journey. Moreover the shortness of the journey adds to its safety and cheapness, and enables a greater number of journeys to be done. Sir John Griffith, in his valuable pamphlet on a transatlantic port in the West of Ireland, says:—"Each vessel could make 30 per cent. more crossings in the year from a port in the West of Ireland than from Liverpool or Southampton. This quickness would make this route the 'record' one especially suited for mails and passengers, and it would at least carry our Irish freight and also perishable goods. It would be a great matter if it took our Irish freight destined for Canada and the United States, and which has at present to go from Ireland to England in order to be reshipped there, whence it continues its journey past Ireland which it had just left. At the very worst, this through-Ireland route would be an alternative route to those from Great Britain, and additional and improved routes will undoubtedly be soon needed in order to cope with the increasing traffic, caused by the wonderful growth of the States and Canada and of travelling facilities. For all these reasons, I hope Ireland will be utilized as a stepping-stone on this passage, which she could well be, and not be treated merely as an obstacle. She has suffered much from the disadvantages of her distant, outlying position in relation to Europe. Let her at last reap the corresponding advantages due to her geographical position. As regards the particular site for such a harbour as we are contemplating, I submit that Galway Bay is much the best in the West of Ireland. It is a magnificent stretch of water, protected from the west and south by the Islands of Aran and the Clare hills, and yet extensive and spacious, and in no way confined or obstructed. It has two wide, clear channels of approach on the north and south of the Aran Islands. There is plenty of deep water near the shore, where the actual harbour could be built, and it would be easily capable of development and enlargement. Then, looked at from the land, the harbour would be close to the town of Galway, which occupies a central position in the west, convenient to Dublin and Belfast, to the north and south and east of Ireland, and could thus be the best distributing centre through the length and breadth of Ireland. Galway, as the best place on the west of Ireland for such a harbour, has been repeatedly approved of by important public bodies after careful inquiry and examination. The Dublin Chamber of Commerce recently appointed a special committee to report on the respective merits of Blackrock and Galway Bays, and they decided in favour of the latter. Sir John Griffith has lately gone fully and technically into the question of the respective merits of the different suggested sites in the west of Ireland, and reports in favour of Galway. And there are many other testimonials but corroborate the Parliamentary Committee which reported in 1884 that it was the unanimous opinion of both naval and mercantile officers that Galway Bay is the most suitable site for a great national harbour. I trust that the considerations and points which I have thus briefly touched upon will be of use to the Committee.

Chairman.

2223. The Committee are very much obliged to you for your statement. There is only one point I want to ask you. Have you considered what you would do with the deadweight cargo?—The scheme contemplates a ferry service from England or Scotland to Ireland, so that cargo could come from Great Britain, through Ireland, to Galway, and, of course, our Irish transatlantic cargo would go that way instead of going to Liverpool, as at present. A good deal of cargo—linen and other things—goes to Liverpool at present, as doubtless you are aware. Then we would have that, with such a service, there would be a further development of trade in this country. We also consider that this would be the quickest service, and I understand that very fast-going vessels require a great deal of machinery, which takes less room for cargo, and that they are, therefore, not such great freight-carrying vessels as others.

2224. The outward cargo would have to come very largely from England?—I should say a good deal would have to come from England, and I do think that this scheme to be really successful commercially does

Chairman—continued.

involve a ferry system from Great Britain to Ireland, by which means passengers and mails and a certain amount of cargo, especially perishable goods, would travel.

2225. Parcels and mails?—Yes.

Mr. Hudson.

2226. I gather that your scheme would be to meet the needs of Ireland commercially, and also that Galway would be a port of great importance for the whole of the western world trade?—Certainly.

2227. Primarily a western world trade?—As Atlantic trade.

2228. And your project would be one that would take the largest vessels afloat and be prepared even for the advances that may be made in their construction?—Yes.

2229. And, in consequence, this would be the terminal port for a large number of transatlantic vessels?—It should be a terminal port.

2230. Have you thought about the possibility of coaling the vessels?—I understand that this service would go to Halifax, where they would be coaled.

2231. There would necessarily be a number of vessels that would need to be coaled here?—In that case the coal would have to come around from Scotland in small steamers, but we contemplated that the vessels would be largely coaled on the other side for both journeys. Perhaps our Irish coal would be utilized.

2232. You admit that that is one matter that would have to be provided for?—Certainly.

Mr. Fidd.

2233. Your idea is a terminal port at Galway?—Yes.

2234. And in your opinion such a port would be useful not only to Ireland, but also to Great Britain?—Yes.

2235. Is it your idea that this port should be mainly for mails and passengers, parcels and perishable articles?—Yes, a "record" quick service for them.

2236. Is it your opinion that you should bring in exceedingly large vessels and that if you did you would supply them with cargo?—I answered the Chairman on that subject as well as I could.

2237. With regard to the coal supply, are you not aware that there is coal in Ireland that would be available for steamers?—I cannot offer an opinion on that.

2238. If the port were established here, would you be able to provide railway communications in connection with it?—Yes.

2239. There would be so difficulty in regard to that?—No.

2240. Are you aware that our Dublin County Council passed a resolution in favour of this port so late as the 8th September?—I am.

2241. That was endorsing a resolution passed in 1911. You are of opinion that this harbour ought to be established as a transatlantic port?—Yes.

Mr. Hanson.

2242. This story of the establishment of Galway as a transatlantic port is an old one?—Yes.

2243. It is a fact that the mails were carried from Galway across the Atlantic?—Yes, and made "record" trips.

2244. Is the idea, that the Imperial Government owes something to the West of Ireland?—The obligation is to Ireland, not specially to Galway.

2245. The Transatlantic Port Committee, of which you are Chairman, is a very influential body?—It is representative. I have addressed a great many meetings in connection with this project and I raised the question twice in the House of Lords.

2246. You know, of course, that a great deal of the difficulty of this problem arose from other districts in the West of Ireland believing that they are the ideal places for a transatlantic port?—That is very natural. I am in favour of each place putting its best leg forward.

2247. The fish-curing industry on the Aran Islands and other places on the Western coast has grown enormously?—Yes.

2248. You are also aware that over half a million tons of potatoes were sent to America in 1913?—I have heard it referred to.

2249. They grow as good potatoes in Galway as in County Down?—Yes.

2250. Yes.

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The Right Hon. Lord KILLANIN.

[Continued.]

Mr. Lindsay.

2255. You spoke of the linen goods going to America via Liverpool and being brought back past Ireland?—Yes.

2256. Do you think if this transatlantic station were established, that the linen goods would go through Galway?—Yes.

2257. I may tell you that before the war linen goods were sent from Belfast to New York, via Liverpool, on a through bill of lading, and the case-Channel portion of the freight was 5s. per ton. Do you think that Mr. Keogh would like to convey goods from Belfast to Galway for 5s.—If it was a developing business and trade, the question would be met.

2258. If you could persuade him and the Great Northern Railway Company, I'll say no more. You and the Dublin Chamber of Commerce supported the scheme?—Yes. They passed a resolution in favour of it. I addressed a meeting there about five or six years ago. Belfast has also on many occasions supported the idea of having a port on the West of Ireland.

Mr. Keating.

2259. Is it your idea that the train ferries would be sufficient to take the cargoes landed at Galway for Great Britain?—Yes, a certain amount of cargo. I don't look on this as a cargo service. The great freight services won't be in competition with this service, which would be mainly for mails, passengers, and goods requiring quick transit, and all Irish goods. If there was a train ferry there would be a certain amount of goods from Great Britain.

2260. With regard to the very heavy traffic from America to Ireland have you considered how that would be dealt with?—I have answered the chairman on that matter.

2261. The reply that you gave the chairman only dealt with cargoes to America. I want to know what you will do with cargoes to Ireland?—The same thing would apply. Any cargo for Ireland would come to Ireland and any for Great Britain would cross by the train ferry. There is another matter in connection with inland transport that I would like to bring under the notice of this Committee. I would especially com-

Mr. M. J. KENNEDY, B.E., County Surveyor of Galway, called in; and Examined.

Chairman.

2262. You are County Surveyor of Galway, Mr. Kennedy?—I am, sir.

2263. I understand you want to say something about providing light railway communication?—Yes.

2264. Unfortunately that does not come into our Reference, unless you can show the connection with the traffic of the port. Do you consider if you had these light railways that you would develop the traffic between the Port of Galway and Galway and the Shannon?—There is no question about it. There has been a great increase in the tillage of the country within the last few years, and if there were better transport facilities to connect the smaller towns with the main line of railway, beneficial results would follow to the trade of the port and the development of Galway and all the district around. At present some of the best tillage portions of this county have no transport facilities except carting their stuff ten or twelve miles to a railway station. In Cleggan, Roundstone, and other places a large quantity of fish is landed. All that fish has to be carted 10 or 12 miles away. If the facilities for transport were better it could be put on the market quicker and there would be less loss. There is, as a matter of fact, a good deal of time from time to time. Take the case of Cleggan; it is 11 miles away from a railway station, and Roundstone is 8 miles. In Dunmore, in the northern portion of the county, there is a great tillage district, and the people have to cart their produce to Tuam, which is about 10 miles away. If there was a motor service or a light railway it would be a great convenience for such districts.

2265. Your idea is that there might be a light railway or a motor service and that that would bring more trade into Galway and that therefore it would be necessary to have better traffic facilities offered at Galway?—Yes.

Mr. Hanson.

2266. And distribution from Galway through the country?—Yes.

Mr. Keating—continued.

needed to your consideration the bridging of Lough Corrib, in this county.

2267. This project—the construction of a causeway and bridge at Knock Ferry—has repeatedly, during the last sixty years, been advocated as a work of genuine public utility, by all the representative Boards and people in the locality, and from the favourable way it has been regarded by the general public also, and by Irish Administrations. I believe it would have long since been undertaken had the necessary funds been available. Lough Corrib, the second largest sheet of inland water in Ireland, occupies the County of Galway, stretching for nearly forty miles from the town of Galway to Tuam, and varying in breadth from eight miles to a few hundred yards at Knock Ferry. The projected work would establish communications, for the purpose of farms, markets, conveyance of turf and other goods, and traffic generally, between the large Concomitant Districts of Ter-Connaught on the one side, and the better-circumstanced districts in North Galway and South Mayo on the other side. The small farmers in the former are entirely dependent on local fairs and markets for the sale of their produce, from many of which they are now separated. A secure means of communication between them and the larger farmers living to the east of the lough, and between the towns of Ballinrobe, Skerale, Headford, and Tuam on one side, Oughisland, Moyoulis, Spiddal, and innumerable villages on the other could connect two large populous localities to their great mutual advantage.

Chairman.

2268. Is Lough Corrib navigable?—Yes. Lough Corrib is navigable.

2269. Are there lighters running down?—There is a little steamer that comes from Galway to Cong. Timber is brought down in lighters and also marble. Even a ferry service that was official and could be relied on would be of great use. I may state that the canal from Lough Corrib to the sea is not much used.

2270. Thank you very much for the evidence you have given us.

Chairman.

2271. And if you had that you would require a light railway or motor service from those districts which at present have no rail-road communication?—Yes.

2272. Are your roads good?—They would have to be strengthened and improved for a motor service. The ordinary horse cart traffic has considerably increased with the development of tillage.

Mr. Hanson.

2273. Can you give us any information as to the effect which the improvement of the roads and canals would have?—I have not considered the question.

2274. Don't you think the efficiency of the Grand Canal at Ballinacree as a feeder for that part of the country would be considerable?—Yes. It is not used very much at present.

Mr. Fidd.

2275. Why?—The people are getting their stuff by rail, with the exception of Guinness's porter. I don't think any other goods are carried on it.

2276. Do you mean to say that the stout comes up by water?—Yes.

2277. Would the light railway you suggest be of the narrow gauge?—That sort of railway would not have very much traffic to handle.

2278. Would not a motor service do?—Yes, quite well.

2279. Why does the county council not make the roads good enough to carry the traffic?—They are not able to afford it.

2280. I am a County Councillor myself, and that is one of the main functions of a county council. I don't see why the county council should shirk their job!—They have done their best. You must bear in mind that the valuation of Galway is very low as compared with Dublin.

2281. You will not increase the valuation by decreasing the facilities. Don't you think you might carry that remark to the County Council?

2281. I

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Captain WAITEMAN.

[Continued.]

CAPTAIN WILLIAM S. WAITEMAN, J.P., D.L., Co. Galway, called in; and Examined.

Chairman.

2291. I understand that you have shipped marble from here?—Yes, sir. I shipped black marble, that apparently they could not get anywhere else, to America for the bases of the Columbia College. It had to go round by Glasgow. A great trade in black marble used to exist years ago, to Boston, from this country. There was a considerable trade in serpentine, and the columns of the Columbia College were made of serpentine.

2292. What is the extent that you can ship from your quarry?—It is almost unlimited. We used to turn out 1,800 tons a year at one time. We got alaba that made billiard tables. Our output could be increased enormously with proper transport facilities.

2293. You think there would be a big export trade from Galway in marble?—Yes. Seeing that they have been already getting it out there. I am sure if the facilities were available there would be a good trade in black marble to America. We are out about two and a half miles from Galway. I have seen our marble even in Rome. It is very fine marble for sculpture work, and it is very popular in New York.

Mr. M. M. EGAN, Loughrea, called in; and Examined.

Chairman.

2294. You want to give evidence in reference to light railways, I notice from your heads of evidence?—Yes.

2295. You heard what was said to another witness who wished to give evidence on the same subject—that the question of light railways did not come within our reference unless it is in connection with the traffic here in Galway?—The light railway that I wish to give evidence about would be a means of increasing the traffic of the port—from Loughrea to Woodford, with a branch line from Portanna to Birr. A considerable portion of the produce of that country cannot be marketed for want of a light railway. At one time Mr. Arthur Balfour promised to provide money for light railways in the West of Ireland, and a promising company went to the expense, or, at least, induced Mr. Dennison, a Professor in the College here, to undertake the expense, and to get a promising company to assist him in having the line measured. All the mapping was done, but Mr. Balfour did not put up the money.

2296. I am sorry our Committee cannot deal with this. It does not come within our reference?—I wish to say in regard to Mr. Kennedy's evidence in reference to the roads that the expense of keeping them has gone up four times since 1914.

Mr. Hanson.

2297. A considerable part of the Co. Galway runs along Lough Derg from Portanna to the Shannon?—Yes.

Chairman—continued.

2298. We will take note of the fact that you think the trade of Galway might be increased by the shipment of marble?—Yes. It has gone to Boston and all over America.

2299. You think the trade could be increased?—Yes.

Mr. Hanson.

2300. There is a local marble company engaged here?—Yes.

2301. It is a fact that this Galway marble is very popular in America?—Yes.

2302. If the facilities were improved you would be able to export in almost unlimited quantities?—Yes.

Mr. Field.

2303. Is it a fact that an American firm owns the Galway black marble quarry?—No, it is a local company.

2304. You really have no facilities for transport?—It has to go to Glasgow, and has to be transhipped to America.

Mr. Hanson—continued.

2305. Is the Shannon navigation of any use to that part of the Co. Galway?—Yes.

2306. Would the proposed line you suggest work in as a feeder to the Shannon navigation?—Yes.

2307. And it would mean the reconstruction of the old railway that was stolen between Portanna and Birr?—Yes.

Mr. Field.

2308. Why does the heavy traffic not come on the Grand Canal instead of on the railway?—I cannot say.

2309. The proposal is to run a railway, instead of the one that was stolen, to Portanna?—The proposal is to connect that part of the country and give it railway communication. It is 30 Irish miles from Loughrea to Birr, and 14 to Woodford. We were promised the railway, but we did not get the money for it from Mr. Balfour.

(This closed the evidence.)

Chairman.] We are very much obliged for the information we have received, and we shall report on it to our main Committee.

(The Sitting then concluded.)

THIRTEENTH PUBLIC SITTING: THURSDAY, 19TH SEPTEMBER, 1918,

At the COURT HOUSE, BRIMMULLEY, at 3.30 p.m.

MEMBERS PRESENT:

Colonel John Gretton, M.P.

Mr. William Field, M.P.

Mr. W. A. Leaday, M.P.

Mr. Matthew Keating, M.P.

Mr. Walter Hudson, M.P.

Mr. P. J. Hanson.

Mr. PETER MACNOLLY, Secretary.

SIR ARTHUR SHIRLEY BENN, M.P., in the Chair.

Chairman.] On the 5th of last month, the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate

and suitable to meet the national requirements, and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland, to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this

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Very Reverend CANON HEGARTY.

[Continued.]

Chairman—continued.

this purpose. We put notices in the paper, stating that this Committee were coming over and would visit various ports, and asking that anybody that had any representations to make would send information to Dublin as soon as possible after September 2nd, so that we could arrange our tour round the different ports to meet the wishes of those who desired to give evidence.

Very Reverend J. J. CANON HEGARTY, P.P., V.F., Belmullet, called on; and Examined.

Chairman.

2300. You desire to give us some evidence, Canon Hegarty?—Yes, sir, I propose to submit a very short statement in connection with Blackrock Bay as a port of call or a terminal port. As a number of local public men are giving evidence regarding local interest I shall not occupy your time dealing with them. I am parish priest of Belmullet, and have taken an active interest in the development of Ernie for the last 25 years. My great desire is to see Blackrock Bay used as a terminal port for a fast mail service with Canada. Such a service would suitably transform the west of Mayo, and drag it from its isolated condition into the limelight. Shortly after the Battle of Waterloo during the membership of the Duke of Wellington, a Select Committee of the House of Commons recommended the establishment of an "Express mail and passenger route between England and the Colonies, via Ireland." This Committee selected Blackrock Bay and Halifax, Nova Scotia, as the termini of the "most expeditious, the safest and the cheapest route." Later on the Melbourne Ministry in 1835, advocated the same scheme in order, as they stated, to promote "financial, commercial, military and political intercourse with our Colonies." Since then several Colonial and Imperial Conferences have discussed and approved of an All British mail and passenger service between the Mother country and her Colonies. During these discussions great emphasis was rightly laid on the necessity of making it as direct and rapid as possible. This directness and rapidity I humbly submit cannot be secured unless Blackrock Bay is the terminus on this side of the Atlantic. There is no other bay in Europe which affords such natural advantages for an All Red Route. It is practically on the line followed by Canadian traffic to the British Isles. It is larger, safer, better sheltered, easier of access than any other bay recommended for this service. It lies well into the Atlantic, being the most westerly in Europe. Its entrance 3½ miles wide, over 25 fathoms in depth, is remarkably well defined by the cliffs of Achill, 2,122 feet high in the South, and, on the North, the Black Rock light, 226 feet above the water. It has a perfectly sheltered area of over 5,260 acres, of which the lower depth is more than 5,000 fathoms. It is practically free from fog, and has no rocks or sandbanks. Nature has very richly endowed it. Now, when we are anxiously looking forward to the Fulfillment of Man and the Federation of the world we should not fail to utilise the advantages of Blackrock Bay for federating at least the British Empire. As your time is very limited, and you have to hear a number of other witnesses, I shall not detain you further, but shall hand in a pamphlet that has been written by the late Bishop of Elphin, and which embraces substantially everything that can be said for Blackrock Bay. It compares Blackrock with Galway, Liverpool, Queenstown and other harbours, and it shows that Blackrock stands pre-eminent, both for natural advantages and on account of its westerly position. I enclose I can hand in this pamphlet.

2301. Certainly. We shall be glad to get it.—Of course, I should state that there are parliamentary powers already in existence for the construction of this harbour and for the railway connecting it with the three principal railways of the country from Blackrock, via Killybegs to Coláiste, where it will connect with two of the systems. The total length of the proposed line is 16 miles and 40 chains. Coming to evidence in connection with the local interests of the district, I need not point out to you how isolated the district is. We are situated 40 miles from the railway station at Faldra, which is in reality the most convenient station for commercial purposes. It is impossible for us to compete with the outer world and pay for the transport of goods over that distance by road. There happens to be a small steamer between here and Sligo. Its sailings are irregular, and it only serves a propo-

Chairman—continued.

We have come here to find out from those who are interested in this locality about Blackrock Bay and its possibility of becoming a big port dealing with ships from America and with the trade of this part of the country, and we are very anxious to get any information that you can give us. I understand that the Very Rev. Canon Hegarty will give us some information.

Very Reverend J. J. CANON HEGARTY, P.P., V.F., Belmullet, called on; and Examined.

Chairman—continued.

tion of the traffic. I should say the traffic in a normal year would be about 9,000 tons.

Mr. Hannan.

2302. By steamer?—Yes. Then there is the traffic by road and I cannot really estimate that. There is also traffic by a hooker between here and Achill which is also very important. I should think if that traffic was put at 1,000 tons a year it would come very close to the mark. There are outgoing districts, the traffic over which does not pass through Belmullet, and I cannot speak for them. The Ernie district was one of the first in Ireland that was scheduled in Ireland in the name of Mr. Arthur Balfour's Chief Secretaryship. Ernie was one of the first districts in Ireland scheduled for a light railway and we are still without that accommodation. There was money earmarked for it, but I do not know whether that money is available at present. Now, as the Government seem disposed to look after and develop out-of-the-way districts like this, we hope that you will earn our gratitude by being the men who ultimately succeed in persuading the Government to enable us to carry on our life as a civilised portion of the community.

2303. Supposing a port should be formed here, how would the labour question stand—would there be sufficient labour here?—There is a great deal of labour available in Ernie and to show that I may state that for the English and Scotch harvests about 2,000 labourers migrate from Achill and Ernie.

2304. Annually?—Yes. The number may be more. I am told now it is 3,000. I would say myself about 2,600. As many women go from Achill. Even when the migrants go to England and Scotland there is still a very large quantity of labour that could be utilised if it were attracted by current rate of wages.

2305. Supposing the Transatlantic lines came in here is it the feeling here that this should be a port for the landing of passengers and the discharge of mails and of packages—small things—and that the heavy cargo should go to Liverpool?—The desire here is to make it, ultimately, a terminus, and, pending that, the wish would be to have it as a port of call. The great desire is to have it as a terminus, and Blackrock would be a very good distributing centre.

2306. Do you think if a port was built here for the Transatlantic business that it would develop a trade for the smaller steamers for the local trade?—Yes, that is my opinion.

2307. Do you think you would have a good cattle exporting business from here?—There is a gentleman connected with the cattle trade here who will give you information on that question.

2308. Do you know the distance from here to Liverpool?—I cannot give it to you definitely. I should say about 350 miles from Blackrock.

Mr. Dineley.

2309. I have not had an opportunity of looking at this pamphlet which you have handed in. I should like to have a copy of it?—I will try to get you a copy.

2310. Is there any estimate as to the time, say, from London to Blackrock?—Yes, it is given in the pamphlet I have handed in. I think the railway time is about 14 hours.

2311. About the local services, how often does that boat run from Sligo now?—It runs at present once, and sometimes twice, a week.

2312. Is that all?—Yes.

2313. It used to run three times in summer and twice in winter?—Yes.

2314. They have reduced the service?—Yes, because the subsidy has been reduced. There is no passenger traffic now.

2315. I suppose it is a question of saving coal principally?—Yes.

2316. There

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Very Reverend CANON HEGARTY.

[Continued.]

Mr. Hannon.

2326. There has been considerable industrial development in this part of Ireland during the last 20 or 25 years?—The lace industry is the principal industry established in this place. The income at present from lace is somewhere, I should say, about 240,000 a year.

2327 And with facilities for easy transport to American markets that would be considerably enlarged?—Yes. And I should have mentioned that it is the expectation, if Blackhead were either a port of call or a terminal port, that the surplus labour in Ireland would go to the Canadian harvests rather than to the Scottish harvests.

2328 The people of Erris are, as a rule, an industrial people?—Yes. The three largest lace schools in Ireland are in Erris.

2329 The people, given an opportunity, are inclined to put their back into the work?—Yes. There are no idlers here, if they can see that they can make anything of it.

2330 And you are quite satisfied that the development of this factor with railway communication inwards would have a marked effect on the whole area west of Ballina?—On the whole of Connacht. In the first place it would have a very marked effect on the development of Erris and the surrounding district. Undoubtedly a train service would give us a market for our goods and pigs and sheep that we have not at present. It would also give us a market for fish. Our fishing boats are considered good and, if there was a fresh fish market available, I am perfectly certain that the fishing industry would be very remunerative. It is only now a salt fish trade, and the industry is only carried on by small boats, owing to the fact that there is not proper shelter for larger vessels, and there are no trains available for the fresh fish trade.

2331 The piers in this parish are absolutely useless without development?—There is no pier in this parish of any use for a fishing industry.

2332 As a matter of fact there are great possibilities for the fishing industry of this part of the Mayo coast?—Yes. The Fleetwood trawlers and vessels from France used to come to the western coast. I know that we had to appeal to the Department of Agriculture to keep the Fleetwood trawlers off the coast. They were coming in and destroying the trade of the local fishermen.

2333 It is the unanimous feeling of the people of this part of the country that the development of this port and the construction of a line of railway inland would have a marked effect on Irish prosperity as a whole?—Yes, undoubtedly. It would give to Ireland really what nature seems to have destined for her in placing her on the direct highway between the Old and the New World.

2334 This district has suffered from the constant failure of good intentions on the part of the British Government?—It has certainly suffered from the fact that the good intentions expressed have not been carried out.

2335 Almost every Chief Secretary, from Mr. Arthur Balfour, desired to do something substantial for Erris?—They have visited us and left us under great expectations.

2336 But the expectations were never realised?—No.

Colonel Griffin.

2337. I would like to ask a question about the local traffic now going on. I think you said the steamer carried about 9,000 tons or thereabouts?—Yes, I think the export and import by water was about that.

2338 Both ways?—Yes.

2339 What commodities does that consist of?—Foodstuffs, tea, sugar, and everything commercially handled.

2340 Are the foodstuffs brought here or sent from here?—They are principally brought here.

2341 What goods do you send away by steamer?—Eggs, butter, pigs, and sometimes there are peculiar stones exported from here. Fish has been exported during the summer season. Salmon caught in the outer waters and salt fish are sometimes exported also. I think there is no salt fish on the estimate I have given here.

2342 I think you said that about 1,000 tons would be about the total import and export trade of Ballinacorney?—About 10,000 would be the total, including

Colonel Griffin—continued.

what is sent by steamer and carried over the road from Ballina. Of course I am not including cattle or pigs or sheep. There are gentlemen here who will give evidence with regard to those.

2343 Is this district or part of it scheduled as congested?—The whole of the barony of Erris is congested.

2344 Would this district as a whole be able to produce more, including the fishery industry, if better facilities of transport were provided?—Undoubtedly. I know that this district has improved within the last 20 years in some things from 30 to 40 per cent. and, if the lands of Erris were distributed and planted, the exports and imports would be at least double of what they are at present.

Mr. Hodges.

2345 I think you mentioned that the building of this new port at Blackhead Bay would necessitate railway extensions?—Yes.

2346 Did I follow you accurately when I got the impression that you stated that the railway line that is projected, and for which Parliamentary powers have been obtained, would connect with the three main railway systems of the country?—Yes. Two at Collooney and one at Killybegs.

2347 How many miles of new railway would have to be built to make this connection?—45 miles and 42 chains.

2348 The main connection would be with the Midland Great Western and the other main lines of Ireland?—It would connect directly with the Midland Great Western at Killybegs, and with the Great Southern and the Midland Great Western at Collooney and the Great Northern, I think, has running powers there also.

Mr. Field.

2349 I take it that your view is that if this route was established it would be as much benefit to Great Britain as to Ireland?—Candidly my opinion is that it would benefit Great Britain much more. I know that the Colonies—Canada, Australia, and New Zealand—have been pressing this matter for years on the English Government. They have offered substantial subsidies and the All-Red Route would have been established for a considerable number of years had the English Government given a sufficient subsidy. My opinion is that, if this route was established, it would be a bond of great importance to the British Empire. It would unite it in a way that it is not united at present. The mail route from Blackhead would connect very successfully with the mail route from New York, and even American passengers would pass over this route for any place west of Chicago. Though it is our interest and wish, speaking from the local point of view, that this port should be established, I assure you, in my poor opinion, its establishment would be much more beneficial to Great Britain than to Ireland. The great Duke of Wellington recommended this route first, and a few years later another British Ministry recommended the same route, and they recommended it because they considered it necessary for the safety and for the advancement of the Empire.

2350 This, I will take it, is your opinion—that it is necessary to have a transatlantic station on the west coast of Ireland, and Blackhead is the best place?—I am decidedly of opinion that, if there is an All-Red Route established without Blackhead being selected as the first bay on the European side, ultimately the commercial interest will establish Blackhead, because there is no other bay in Europe can compete with it owing to its westerly position, its size, its shelter, position, and its security. Expert evidence has been given on this subject.

2351 I take it that you don't advocate it as a place for the very large steamers which come in and discharge their cargoes?—Well, in the very beginning we could not expect that. Ports must develop; but our desire is that, ultimately, it would be a terminus.

2352 That is for mails, goods and passengers?—Yes.

2353 From the local point of view do you think you would have a sufficient amount of cargo available to go across the Atlantic?—Unfortunately, I think at present

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[Continued.]

Mr. Field—continued.

present we cannot produce sufficient local cargo for one of these vessels.

2344. That is a very important point, you know?—I know it is. Well, we certainly cannot produce a sufficient local cargo.

2345. But developments may take place?—Yes, they can take place here as well as elsewhere.

2346. You are of opinion also that it would serve local as well as Imperial purposes to have this port established here?—There is no doubt in the world that if Blackhead were seen a port of call it would help the Irish District more than a mere railway without the port, because there would be a great deal more business done here and a considerable amount of goods supplied even to the vessels for the upkeep of the voyage—vegetables, eggs, butter, meat, &c. From Helmsfleet we export, by post, more meat than any other town I am aware of in Ireland.

Mr. BERNARD EGAN, Bellina, representing the "All Red Route" Company, called in; and Examined.

Chairman.

2350. You wish to give me some information, Mr. Egan?—I have been authorized by Sir Thomas Troubridge of London, to appear at this inquiry as the representative of the "All Red Route" Company, and I desire to thank you, sir, for the telegram of authorization. My purpose will be best served by saying that I quite understand all that has dropped from the lips of Canon Hegarty. With regard to the railway line not having opened up before this, I would like to state that Canada was rather weak in her promises, but New Zealand offered, two years in succession, half a million a year as subsidy for carrying the mail. Canada and Australia did not exactly announce the amount they would contribute. There was some delay on the part of the promoters on account of a Bill being promoted in Session 1913 on behalf of Galway. They were slow in subscribing their money for constructing the line of railway assuming that there was a possible rival scheme in favour of Galway starting them in the fact. That Bill (Session 1913) was afterwards withdrawn when the time came for lodging the money. On the last occasion (Session 1914) Mr. Robert Wetherington asked the Examiner of Standing Orders to allow him 14 days to lodge the money in connection with the 1914 Bill that was being promoted on behalf of Galway. This was an unprecedented thing to do, but the Examiner did it. When, however, the 14 days had expired the position was exactly the same—the money was not forthcoming. If the Galway scheme had not been brought forward, the promoters of the All Red Route would have been at work long ago. The promoters of the All Red Route have already spent £22,000 on the scheme.

2351. You represent here today the "All Red Route" Company?—Yes.

2352. Is it the idea of the Company that Blackhead would be used as a port of call for the big steamers, and that facilities would be offered for local trade for small steamers?—Yes. The idea is that it should be a port of call, in the first instance, and after a time develop into a terminal port.

2353. Have you any idea how you are to obtain coal here for bunkering purposes?—No. There is an abundance of turbarry about, and it might be utilised. Some years ago I sent a sample to London for analysis, and got a very good report on it. They intended to use it as fuel for locomotives.

2354. Can you tell us the distance by direct line from here to Liverpool?—No, I cannot. I believe Canon Hegarty has given it to you to the best of his belief. I only got the wire about the sitting of your Committee here to-day yesterday evening, and I had not time to refer to the documents, but I have them, and, if necessary, I can produce them at Bellina.

2355. Is it the idea of the "All Red Route" Company, if the port was made, that you would have to build up a town to get the necessary labour?—Yes, the idea is to build a town there. That is part of the scheme.

Mr. Field.

2356. Can you give us any other reason than the fact that Galway has been promoting its scheme to account for the inactivity of the promoters of the "All

Mr. Field—continued.

2347. You cannot do it on a larger scale on account of not having railway communications?—No. We can only send small quantities to town.

2348. Can you tell us how it is that, if you have a Bill in Parliament and if you have promises from the Colonies, this port is not going ahead—what is the delay? Have you been agitating in connection with it?—We have been agitating about it, undoubtedly, and the real drawback is that the English Government have not offered a sufficient subsidy to any steamship company to carry on the business.

2349. Did you keep knocking all the time, because if you don't knock you will get nothing?—We do keep knocking, but the door is sound-proof.

Chairman.] We are very much obliged to you, Canon Hegarty, for the information you have given us.

Mr. Field—continued.

Red Route" scheme. You said that Galway came in, and that, on account of that, your company did not go on with the work?—Yes.

2357. You allowed the Bill to remain and took no action in regard to it?—The "All Red Route" Company have got Parliamentary powers, and they have got similar powers in the Canadian Parliament, and those powers are still in existence. They have been removed from time to time.

2358. And is it only the opposition of Galway that prevented you from going ahead with your scheme?—Yes. The promoters thought, if the Galway scheme had Parliamentary powers, financiers would not agree to construct the line of railway.

2359. Are you prepared to go ahead with it now under existing conditions?—I am of opinion that they are prepared to go ahead.

Mr. Lindsay.

2360. When do the existing powers expire?—They have not long to run now, but application will be made to Parliament to revive them. I think they expire in July next, but there is at present a movement on foot to have the powers revived once more.

Mr. Hannan.

2361. You have considerable business experience in the West of Ireland?—Yes.

2362. And have been a representative on various public bodies?—Yes.

2363. And you quite agree, I suppose, that the agricultural prosperity of this part of the world largely depends on transport facilities?—It does.

2364. And it is a notorious fact that half a century's progress of the district has been retarded because these facilities do not exist?—Yes.

2365. Both by land and sea?—Yes.

2366. And it is the view of all the local governing bodies in this county that some such facilities as we are inquiring into ought to be afforded?—Yes.

2367. And the County Council, in order to give Eric a chance, have passed a resolution guaranteeing a certain rate in the event of success?—The whole county of Mayo committed itself, by resolution, to pay a certain sum of money. I estimate that would be supposed to have a greater benefit from the scheme than others have cast a larger figure in the taxes upon themselves. That goes to show how anxious the whole County Mayo is for the All Red Route.

2368. Supposing that a Transatlantic port was established at Blackhead, would you have the old routes revived as to the line of railway?—No. There is absolute unanimity in regard to that now.

Mr. Keating.

2369. Is the County Council guarantee to be given only in connection with the Blackhead route?—Yes, only to the Blackhead route.

2370 I

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Mr. McGHEEIN

[Continued.]

Mr. J. McGHEEIN, Chairman, Bellinlet Board of Guardians and Member Mayo County Council, called in; and Examined.

Chairman.

2370. I understand you are Chairman of the Board of Guardians and a member of the Mayo County Council?—Yes, sir.

2371. You have heard what Canon Hegarty and what Mr. Egan said?—Yes.

2372. Are you in accord with them?—I am quite in accord with everything they said. I endorse absolutely everything they said, and, in fact, I will go further—although it is very hard to go further—and speak of some things that Canon Hegarty left partly unsaid. I would like to tell you that the area of the barony of Erris is 293 square miles; the population in 1901 was 15,845; the valuation, £11,441 13s. now, in 1901 it was £10,518. One penny in the 2 produces £47. The rates are 8s. 7d. on land and 11s. 9d. on houses. I mention these little details fearing that in your Report you might recommend something like a bonded guarantee on any works that you submit for approval, and I mention these things to show that it is absolutely, utterly impossible for Erris to bear any more rates. I will say that from 90 to 100 tons per week is carried by the "Tartar"; that is imported into the barony. There is not as much exported from Bellinlet. The "Tartar" is the steamer that runs between Bellinlet and Sligo. The same, or nearly the same, quantity of stuff is earned by hooker from Westport and Achill, and a good deal of stuff is carted from Ballina. A full load for an Erris house from Ballina is 15 to 17 cwt. It is universally admitted that Blackhead is the finest harbour in the British Isles, if not in Europe. It has an area of 45 square miles, an average depth of 25 fathoms, as I will show by the Government chart. Alongside the proposed pier at lowest life it has 40 feet of water. I can prove that by the chart. It can accommodate all the names of Europe as well as all the fleets of the Atlantic in the stormiest weather. It is the nearest European port to the American Continent, being 71 miles nearer to Halifax than Galway Harbour. It is completely sheltered on all sides and absolutely free from rocks and shoals, and it is accessible in all kinds of weather and in all conditions of the tide. We know here, in the neighbourhood of Blackhead, that we have a rival in Galway. Now I will compare Galway with Blackhead.

2373. I may say that we have been at Galway and we know the position there, and we have only got to say in our Report what we know about the different places?—I was sorry I was not in Galway to cross-examine the witnesses that came forward; and in giving the details I want to give you in regard to Galway, I think I am following the procedure adopted by Courts of Law.

2374. This is not a Court of Law. We want to get information about this place, and we do not require any evidence about other places?—There were some adverse remarks passed about Blackhead, both in Galway and in Dublin, and with a view to disabuse the mind of anyone who entertained these views I would ask you to permit me to give you some of the details bearing on the evidence produced before you. I think I am only asking a reasonable, sensible favour. I won't keep you one minute. Galway has long been abandoned as a safe port even for vessels of moderate size and tonnage. Some four years ago the Galway Council were negotiating to obtain a loan of £40,000 to fit the port for ordinary navigation purposes. The promoters of the Galway port, well aware of its unsuitability as a transatlantic port, decided on Barra, a village along the sea coast 2½ miles west of Galway City, and now witness the absurdity of such a project. See the "Irish Coast Pilot," a book compiled under Government supervision, and see the prospects of the Galway scheme, with Barra as a transatlantic port. On page 399 Barra is described as "a village with a quay having a depth of 12 feet of water alongside at high water springs. The rocks dry two cables—over a quarter of a mile—from the shore on the western side. The small harbour formed by the quay is dry at low water and only used for coasting boats." There is Government information.

Mr. Field: You are not dried up, anyhow.

Chairman—continued.

Witness: Such is Barra, the proposed superior alternative to Galway Port by the promoters of the Galway scheme.

Chairman.

2375. Can you give us some information about your own plans?—The idea apparently being to excavate on the rocks at Barra a basin of, say, 400 or 500 acres in accommodate vessels of 45,000 or 55,000 tonnage. It is utterly impossible to make such a place a suitable transatlantic port, even with the expenditure of millions, exposed as it is, as well as the Galway port, to the violence of the Atlantic storms and other impediments to navigation. The Galway scheme is chimerical in the extreme and in all its surroundings. It has got no Parliamentary powers, no promoting company, no practical support of any kind.

2376. The Galway people are not here, and we only want information from you in reference to Blackhead Bay?—Very well. The Blackhead scheme has the approval of both Houses of Parliament, the Corporation of the cities and towns of Ireland, Chambers of Commerce, and Members of Parliament of all shades of politics. Parliamentary powers have been granted for the construction of the harbour and a line of railway connecting it with the three systems of railway meeting at Collooney. The distance between Blackhead and Halifax is 2,036 miles, so that steamers running at, say, 25 knots an hour can accomplish the voyage in three days and eight hours. By the Blackhead route the mails could be conveyed from London to Halifax in four days, and, as Blackhead is 71 miles nearer to Halifax than Galway, passengers from America would arrive sooner at Dublin via Blackhead than via Galway, notwithstanding the longer distance by rail. For a transatlantic port the position of Blackhead is unique as its suitability and is considerably superior to any position or port in the British Isles, and "in," as the Duke of Wellington's Select Committee of the House of Commons Report states, "in the interests of the financial, commercial, military and political intercourse with our Colonies." Other ports may have advocates actuated by selfish motives and commercial jealousy, backed by influence and the influence that wealth confers, but Blackhead stands enriched and endorsed only by nature and untrivalled in the location. God has destined it should occupy in the map of the world. We know that Galway is a rival scheme to Blackhead and that there are English schemes also, and I would say, reading between the lines, that perhaps the English schemes put forward are more dangerous rivals. In fact, I believe they are. But the putting forward of useless and impossible schemes is detrimental to the best interests of Ireland, and would result in ruin and national disaster if Ireland were essentially deprived of its harbours of a port on the highway between the Old World and the New. Millions would be uselessly spent in making any other port a harbour for transatlantic traffic. Not one penny need be spent on Blackhead for a harbour. It is already made. All that is required at Blackhead is the erection of a jetty, and for this and the harbour building the plans are long ago approved. In the transport of merchandise, mails, troops and munitions of war from America and elsewhere, in these countries, Blackhead offers the safest and most expeditious route, and it is apparent that, by having Blackhead as a base, the Government would not find it necessary to send ships all round a dangerous coast, thus offering them simply as prey to German submarines. Lord Shaghnessy, Chairman of the Canadian Pacific Railway, the richest and most powerful corporation in the world, was in favour of the Blackhead scheme, and when Dr. Clancy, Bishop of Elphin, and Dr. Ambrose, M.P. for West Mayo, went to Canada to further the scheme, he gave them every encouragement. If the All-Red Route, with Blackhead as a port, had been perfected when the present disastrous war broke out, who dare doubt that the "Lusitania," with its valuable cargo of precious human lives, would not be sunk on the coast of Cork and Kerry. The greatest pessimist amongst us can readily believe that the vast majority of these would be enjoying the comforts of home or of hotels in Dublin.

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Mr. McGEHEE.

[Continued.]

Chairman—continued.

Belfast, say, or in Glasgow, Cardale, Liverpool or London, when they found themselves helplessly struggling in the water, victims of German savagery and cold-blooded brutality and murder. This is a resolution unanimously adopted by the Belfast Board of Guardians on the 24th August last, showing the superior suitability of Blackhead Bay as a port of call.

3377 Is it a mere general statement, or does it give any figures?—It gives no figures, but it gives you three points showing the great importance of Blackhead Bay. First, it states that the Duke of Wellington appointed a Select Committee of the House of Commons to report on the capabilities of the harbours of Western Europe, and that Committee unanimously favoured Blackhead "in" as the Committee Report states, "the interest of the financial, commercial, military, and political intercourse with our Colonies." Second, it states that "Lord Melbourne, in 1833, affirmed the verdict of the Duke's Committee and advocated the development of Blackhead." The third point stated in the resolution is that "Mr. Chamberlain, in 1867, when he was Colonial Secretary, recommended Sir Wilfrid Laurier on the pre-eminent advantages of Blackhead, and Sir Wilfrid favoured the bay as a Transatlantic port. Admirals of the British Navy, notably Sir Cyprus Bridge, G.C.B., bear testimony no less emphatic as to the suitability of Blackhead from every point of view conceivable." Bearing on that point, I would also like to hand in a letter written by Sir Cyprus Bridge, dealing with the selection of Blackhead Bay as a port of arrival for ships bringing cargoes to the United Kingdom when the British Empire might be involved in a maritime war. This letter was sent to the Press, to the heads of the Irish Government, and, of course, to the English Cabinet. I would pray of you to give it your practical sympathy. This letter coming from such a personage would, in itself, quite justify this Committee in recommending that no port but Blackhead should be selected as the site for a Transatlantic port.

3378 I am sure the Committee have very much enjoyed hearing your eloquent address on behalf of Blackhead, and quite recognise that you are prepared to fight for Blackhead Bay against all comers. Can you tell us the actual distance between here and Liverpool?—I cannot, but I think 337 miles is the actual distance.

3379 How many more miles would incoming steamers from Liverpool to Halifax have to travel by calling at Blackhead Bay?—The idea underlying the

Mr. E. C. CARSON, Trader and Farmer.

Chairman.

3380 I understand you are engaged in the cattle business?—Yes, sir. I propose to give evidence as to the quantity of live stock that travels by road between this town of Balmallick and Ballina. About 10,000 live stock travel between this town and Ballina yearly, of that number about 1,000 are pigs and 4,000 sheep and lambs. I believe that the cattle depreciate at least by £2 a head and the pigs by 10s. owing to the fact that they have to be taken by road. As a matter of fact on several occasions a number of them have died on the road. The sheep would be depreciated to the extent of 5s. a head. From Balmallick to Ballina is a distance of 42 English miles, and some cattle have to walk 10 miles further on. Stall feeding has been tried unsuccessfully for years from the very fact that if you had heavy cattle you could not get them to market. The Sligo steamer service is erratic and not reliable. Cattle have been lying in Sligo for a week or ten days, and the expense of keeping them during that time was, of course, great. The dead meat trade is a big business here—between 1,500 and 2,000 sheep are sent by parcel post all over Ireland and England during the year. In a number of cases a lot of this meat perishes on the journey owing to defective postal service between here and Ballina. The service from here to Ballina is very poor. For the last few years there has been a motor service to carry mails and passengers and light luggage. Previous to that there was a two-horse one. This motor service started fairly well, but it seems to have gone from bad to worse. It cannot take passengers or perishable stuff. This

Chairman—continued.

evidence adduced before this Committee is not to go from Liverpool at all. The idea is that there should be a line of railway from Blackhead to Coleraine, thence to Larne, and then to Hookland.

3380 What are you going to do with the dead weight cargo—the thousands of tons of cargo that these big steamers bring? You could not handle that over the railroad, and there is no market for the cargoes here. It seems to me, if this is to be a place for passengers, for mails, and parcels, that the steamer would have to go on to Liverpool or some other place that would take this cargo. That is a matter that we would like to get some evidence about. I hope you will understand that all this Sub-Committee can do is to tell on main Committee the information we have received as regards the facilities offered by the various ports. We cannot make any recommendation direct to Parliament. We are making investigations here, and we are going to report to our main Committee exactly what we have found.—There is one thing I would like to deal with, and that is, the evidence given before your Committee, in Dublin, that the Midland Great Western Railway was prepared to make any necessary line of railway to any port selected.

Mr. Hanson.

3381 No, I don't think we had that in evidence?—It is my opinion you had. However, I am open to correction.

3382 We had an expression of their practical sympathy with any port recommended, but no guarantee that they would build a line? I may be wrong. What I was going to say is that, if the Midland Railway wanted, they could build a short line of railway 15 or 17 miles, or 18 at the most, between Mulranny and the point opposite to the point proposed, and they would have a monopoly of practically all the trade—a line from Mulranny to Killybegs Bay at the opposite point, so that the Midland Railway Company could have no grievance if Blackhead were selected as a port of call.

Mr. Field.

3383 Is it your opinion that Blackhead is more preferable than any other route?—It is; not only that, but I can adduce practical figures to prove that it is unsuited by any port in the British Isles.

3384 Would you be satisfied, at the beginning, to have Blackhead as a Transatlantic port for mails and passengers and light traffic?—Certainly.

Balmallick, called in; and Examined.

Chairman—continued.

you a very large quantity of stuff was left behind here, and even soldiers have been left behind. They could not leave the district for days. There are lots of other stuff dealt with in this district that I don't know so much about. You will probably have other evidence in regard to these. There is no means of getting any perishable stuff away, and no inducement for fishermen to pursue their industry as they have no market. If they catch flat fish of any kind they have no way of getting it to Ballina, and the result is the people get lax and put no energy into their work. I think the question of mammals ought also to be considered. We have had hundreds of tons of kelp shipped to England. It is used in potteries, and I believe it is now used for explosives. The promoters of that scheme had to stop quarrying altogether because they had no means of getting stuff away. This estimate that I have given you in regard to the live stock is the estimate for stock going by road, not by steamer. If they went by steamer they might lose their market. The steamer has no fixed days of sailing, and for a considerable time has not taken any live stock. The owners say they don't get a sufficient quantity to warrant her going alongside the wharf at Finnerhead.

3385 Evidently the facilities for transport here are what you would call very bad?—Actually bad. We have no way of getting any perishable stuff away. We cannot get rabbits away regularly, with the result that last year about 2200 worth arrived in England unfit for human food.

3387 What about your mail service?—It is erratic.

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Mr. CABSON

[Continued.]

Chairman—continued.

2330. It is by motor car?—Yes, but it is very uncertain. It is supposed to be regular, but some days it breaks down, and we don't get any mails at all.

2331. What is the condition of your roads?—Fair.

Mr. Hansen.

2332. We had a test of one of them this morning?—They are poor in parts.

Chairman.

2333. You think of the port was built that there would be a good deal of trade going between this port and England and Scotland?—Yes, I believe there would.

2334. Both export and import?—The import for local consumption could not be very great.

2335. How about distribution in the neighbourhood?—Of course there would be a certain amount, and it would naturally increase in time.

Mr. Lindsay.

2336. With regard to the motor service, do you think it is on account of the roads that it is not a success?—The roads are not good.

2337. Do I understand the motor has broken down?—Yes.

2338. Is that owing to bad roads?—It is brought on by bad roads.

2339. Have you advocated taking staff by motor with the County Council?—You could hardly make the roads to carry heavy traffic. It is a boggy road.

2340. You said the service does not take passengers?—Occasionally it does. It is supposed to take passengers, but passengers are often left behind.

2341. Who is responsible for the running of the motor service?—The contractor to the Post Office, but they are not Post Office-owned cars. The old horse car took seven hours to do the journey, but it got there in time. This motor service, however, breaks down.

2342. You stated that the "Tartar" gave up taking passengers?—Yes. The owners stated that the number of passengers did not justify the expense of annually surveying the vessel which the Board of Trade insist upon if passengers are carried. The Congested Districts Board have now given a subsidy.

2343. Have you made representations to the Congested Districts Board with regard to the steamer?—Yes, they are paying a very large sum as a subsidy.

2344. Have you spoken to any officials about the "Tartar" not taking passengers?—No. It is a most unsuitable way for passengers to go.

2345. Does it call at Ballinacree?—No, it calls nowhere.

Mr. Hansen.

2346. Feldspar is very much sought for at present?—I believe so.

2347. Why did the industry cease?—The owners could not get the staff away.

2348. If the trade was sufficiently large they ought to have their own means of transport?—There is no query that they could get a large boat alongside.

2349. Is there a large formation of feldspar here?—Yes.

2350. Is it your opinion that it could be developed?—Yes. There is plenty of it.

2351. Is there anyone who could give us expert advice about its possibilities?—No.

Mr. Lindsay.

2352. Where is the feldspar located?—About a mile from here and farther on, all over the place.

2353. What would you suggest as a remedy apart altogether from the Transatlantic port?—To open up the country by railway. We are absolutely cut away from the outer world altogether. We cannot get any conveyance.

Mr. MICHAEL HEALEY, Merchant, Belmullet, called in; and Examined.

Chairman.

2354. You want to give us some evidence, Mr. Healey?—Yes, sir.

2355. You have heard the evidence already given?—I have.

Mr. Lindsay—continued.

2356. Surely you have considered some definite scheme of dealing with the local industry?—This railway was wanted to open up the country.

2357. And the pier is required?—This railway would of course open up the country and get produce away that sometimes has to remain for a week or ten days.

2358. Where would you suggest that a pier should be built?—Of course, if we got a railway, the pier would be built in this direction, where there is deep water. At present a large vessel cannot get alongside the pier.

2359. From the evidence you have given, do you think that the trade could be very much improved if the pier were built?—Yes, about three miles out, where there is deep water and large vessels could come in, and a railway would also be required.

Mr. Field.

2360. I want to know about the live stock trade. What is it exactly you want in regard to the transport of live stock?—Do you want a vessel to bring the cattle to Liverpool, or convey them by rail to Dublin?—By rail.

2361. It was not your intention that you should have a cattle boat going direct from here to Liverpool?—I don't think it would pay.

2362. How long would that journey take?—About three days.

2363. Then it is not of the question?—Yes.

2364. So then it is rail communication you require in connection with the transport of your cattle?—Yes, that would be a great improvement.

2365. And your contention is that, at present, live stock suffer considerable deterioration by being driven such a long distance by road?—Yes. They deteriorate by 25 a head.

2366. Perhaps not so much, but they certainly do deteriorate?—Yes.

2367. You think if you had that railway communication that undoubtedly your agricultural produce would be considerably improved in value?—Yes, and it would be an encouragement to people to improve things.

2368. It is not a fact that the great majority of the live stock that go from this district are stores?—Yes, a big percentage of them.

2369. The larger percentage?—Yes.

2370. You have very little stall feeding?—Yes, people stopped stall feeding because they could not get the cattle away.

2371. On account of the delay in getting fat stock across?—Yes. They are often left a week in Sligo, and fairs also. They are worth very little owing to extra expense and depreciation.

2372. Your contention is that the live stock, which is really the principal industry of all this area, suffers enormously by the want of quick communication?—Yes.

2373. And you are of opinion that not alone in the case of live stock, but in regard to fish and other commodities, you cannot get them away?—That is so.

2374. You are nearly like Robinson Crusoe?—We are like people in the Channel Islands.

2375. You are, of course, in favour of Blackrock Bay as a Transatlantic port?—Yes.

Ordinary Question.

2376. You know this country well?—Very well.

2377. I gather from your evidence that you are of opinion a railway would serve local needs more effectively than a port?—This railway would open up the district. We want a railway badly.

2378. Is there any route for a railway that would avoid bog land?—You would have to go through a certain amount of bog land no matter what route is taken.

Chairman—continued.

2379. Do you agree with H-4 endorse what has been said by the previous witnesses.

2380. Will you tell us something about the facilities here for transport? Have you anything to add, in that

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MR. HEALY.

[Continued.]

Chairman—continued.

that respect, to what the other witnesses have told us?—Well, of course, I have a little to add. The imports and the exports from Westport to Belmullet in pre-war times was something like 50 tons a week. The exports were about 50 tons.

Mr. Hennes.

2439 By hooks?—Yes. Of course, from want of railway facilities we are altogether handicapped here in Erris and Belmullet. For instance, in regard to the egg business, this district is a very large egg-producing district. Some years there are thousands of pounds lost on eggs alone for want of railway facilities. We have to wait on the "Tartar" service. On a rising market we have to pay a very high price to compete with our opponents. We have to hold over for a week, and by the time they are landed there may be a big drop in price. Sometimes we lose hundreds of pounds on eggs alone. If we had railway facilities we would have 100 things coming into the bary that we have not at the present moment.

Mr. T. J. REILLY, Landowner and Farmer, Belmullet, called in; and Examined.

Chairman.

2440 You have heard the evidence that has been given?—Yes.

2441 Am you quite in accord with it?—I am.

2442 Would you like to add anything?—There is not very much that I can add. There is a question relative to the produce that may be shipped from this district. It may come as a surprise to the Committee that from this district we had the first early potatoes on the London market last year. There is not much encouragement, however, in that respect owing to the defects of transport. This district is very suitable for the growing of potatoes. We could considerably develop the cultivation of early potatoes in this district if we had facilities to get them away to market. Last year a respectable quantity of potatoes left the district for the early markets in London.

Mr. Hennes.

2450 On what date?—In May. The date is the 33rd of May. That is only in one isolated district where the trade has been taken up. If it had been taken up generally throughout the bary I am sure we would have been able to get the potatoes to the market at an earlier date if we had better facilities. I don't think it would be too much to assume that we could raise a considerably larger quantity of potatoes if we had facilities to export them in quantities suitable for large steamers.

Mr. Field.

2451 In regard to the live stock trade have you anything to say?—I find the stall feeding is an absolute failure. We cannot make it pay, and we cannot get the cattle to market in quick time. They are held up in Sligo for several days or a week, and of course they deteriorate very quickly. Under present transport conditions stall feeding would not pay us at all. We have no market for them at home, and we cannot even get them to Dublin. I tried to get pure-bred cattle into the district and for the purpose of sending them to show, but it meant that if I wanted to get an animal to Dublin I had to send him perhaps a week in advance. Nothing encourages farming, in my humble opinion, so much as quick and suitable transport. We have been cut off even from our local shows. I think I would also be right in saying in regard to the egg trade that this is the largest egg-producing district in Ireland. I think I am accurate in making that statement. I am also of opinion that if there were better facilities that that trade could be considerably increased. There is also another industry which would be developed very largely in this district if we had a railway service, and that is the rearing of poultry. I would like also to mention that some years ago, this district exported a tremendous quantity of hogs. In later years that trade has gone down. I cannot give you the actual reason, but I am sure that extra transport facilities would go far to revive that.

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Chairman.

2443 You are fully convinced that the place needs more facilities for transport than it has got at the present time?—Yes.

2444 You believe that the trade of the place and the prosperity of the district would increase if you had more facilities?—Certainly, that is my opinion. The place would certainly develop.

Mr. Field.

2445 Are you mainly concerned with the egg industry?—Yes.

2446 And the eggs are treated exactly like the cattle?—As a matter of fact, the eggs are much worse, because they are perishable.

2447 And the result is, very often the eggs are stale by the time they get to London?—That is so.

2448 Have you many losses in that way?—Yes, year after year. For the last month I don't believe there is a buyer in the egg trade in this district who has not suffered considerable loss.

2449 And the construction of a railway would remove that?—Yes, because we would get to the market much quicker.

Mr. Field—continued.

industry, which was a very considerable industry in this district at one time. As regards telegraph I cannot give you any expert evidence, but I do know, from gentlemen who have been here, that it is to be found in the district in very large quantities. From a conversation I had with a representative of the Sheffield firm that works the quarries here, I understand that the reason they had to abandon work here was that they could not get the stuff away in sufficient quantities. They might get 10 tons in one sailing and 20 tons in another. They could not ship it in small quantities like that, which would not pay. Otherwise they told me it would be a very respectable industry here.

[Chairman.] We are very much obliged to you for the useful information you have given us.

Mr. Lindsay.

2452 You realise, of course, that the construction of a railway or port would take a considerable time?—Yes.

2453 You don't want to wait for transport facilities until that is done if you can have it otherwise. Do you know that either the Department of Agriculture or the Congested Districts Board subsidise motor services?—I heard it, but I don't see how a motor service would be any benefit to us.

2454 It could carry a lot of goods?—To begin with, the roads would not take it.

2455 I am talking of eggs?—We could never have a motor service fit to cope with that traffic. Our roads are not capable of heavy traffic.

2456 Ask them to look into this matter—I mean the people in your district?—Yes.

Mr. Hudson.

2457 You heard of the pier that has been suggested?—Yes.

2458 You agree that it would improve local requirements?—Yes, quite.

Mr. Keating.

2459 Can you give us any idea of the quantities of eggs, poultry, cattle, rabbits, and so forth which are lost to the food market through the absence of transit facilities?—I could not do that.

2460 Would you be able to give us anything like an estimate?—No, I have not been in the trade. A gentleman here has just told me that he lost £275 in six weeks on rabbits alone.

2461 In view of the need of food, I am sure it would impress our Main Committee very much if you and your friends would draw up an estimate as to the quantity that is lost for want of transit facilities?—Yes.

Mr. Field.

2462 With regard to the improvement of the breed of cattle, I notice that the cattle here are very much improved?—Yes.

2463. HAVE-

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- Mr. REILLY.

[Continued.]

Mr. Field—continued.

2463. Have you had a difficulty in importing premium bulls from Dublin to help improve the cattle?—Yes.

2464. You have not anything like the same opportunities of improving the breed of cattle in this district as exists in other parts of Ireland?—Decidedly not.

2465. And the result is that you have not an improvement in your live stock to the same extent as if there were better transport facilities?—That is so.

2466. You are prevented practically from improving your live stock, and also from obtaining the best market conditions in Dublin and across the Channel, owing to the want of these facilities?—Yes.

2467. That is a very serious matter?—It is.

2468. With regard to potatoes, is it not a fact that if you do not get early potatoes to the market within two or three days they are all lessened in value?—You must get them to the market in a perfectly fresh condition.

2469. If you had any reasonable facilities to carry potatoes to London you would be able to compete with other districts?—Yes.

2470. And that would be a valuable acquisition to this district?—Yes.

Mr. W. G. MURPHY, Merchant, Belmullet, called in; and Examined.

Chairman.

2480. Would you like to add anything, Mr. Murphy, to the evidence that has already been given to us?—I don't think that I can add very much to what has been said. I am in the general business here. I shipped £5,000 worth of eggs last year, and within the last five months lost £200 or there by reason of delay in transit and not reaching the market in time. There was some evidence given here in regard to feldspar and silica. I am owner of a property in this district on which there are hundreds of thousands of tons of silica actually in sight. A syndicate leased this place from me in 1913. They put up machinery in 1914, and had it practically completed, but could not get facilities to take away the output of what would be a very large industry. So great were the needs of the Government the other day they got some of the feldspar that is beyond Belmullet carted into Belmullet to the steamer, taken at a high rate of freight to Sligo, and by railway to England or Scotland, at a very high rate, to make polish and other things they wanted for munitions. It is obvious to you that considerable developments could be made in regard to the fishing industry. A whole fleet of boats used to come fishing on here, and the owners of the boats used to have to send the fish in specially prepared vessels to Bristol. All that you could do if you had a railway, as well

Mr. Field—continued.

2471. Are you certain of being able to produce potatoes for the market as early as the end of May?—We have done so.

2472. You are sure that if you had better transport facilities you could extend that trade very considerably?—Yes, Sir; we would all take it up.

2473. That would mean a lot of money to this place?—Yes.

2474. And increased cultivation?—Yes.

2475. And increased food enormously?—Yes.

2476. And the same applies to poultry?—Yes. At present we are cut out of the market almost completely.

2477. What about hops—that industry used to prevail to a considerable extent here?—Yes.

2478. Has that industry been more or less stopped?—It has dwindled down very much. It is not, I suppose, one-sixth of what it used to be.

2479. Outside the transatlantic project altogether, are you of opinion that you want railway communication for the development of the agricultural produce of this district?—It is essential to the development of the district.

Chairman—continued.

as a thousand and one other things, in developing a district like this. If we had a railway we know that both the imports and the exports would increase very materially. I endorse what has been said by the other witnesses. In fact, some of them have said things on the conservative side, in my opinion, as regards the estimates they have given.

2481. We will take it that you endorse all that has been said by Canon Hickey and the other witnesses examined here?—Yes.

Mr. Field.

2482. With regard to the feldspar, is it that the Government were obliged to transport this feldspar by various routes?—Yes.

2483. Did you write to the Government that you had plenty of feldspar in this district, and that what you wanted were facilities for its transport?—No. It was a private company that went into this matter on their own.

2484. They were supplying the Government?—They were supplying the parties that made munitions.

2485. If there was a representation sent from the owners to the Government pointing out that they could not send supplies owing to the lack of railway facilities, it might do good?—It might.

Mr. H. S. BRIDGES, Landowner, Belmullet, called in; and Examined.

Chairman.

2486. Do you wish to give us some information?—I only want to say a few words about the feldspar. I am a landlaid living here. One company has got a lease of minerals on my estate, and another on an adjoining estate. An expert told me that there were unlimited quantities of feldspar in the district surrounding my land, but that the whole question was a question of transport facilities. They say Kins is a poor locality. I don't think it is, if it got fair play. It is poor for want of outer communication. There are also other minerals in the district. There is iron ore on my property that could be developed. There is a splendid granite quarry at Blackrock which could be developed if there were facilities for transport.

Mr. Huxson.

2487. What kind of granite is it?—It is very fine granite.

2488. Does it take a polish?—Yes.

Mr. Hudson.

2489. Can you tell me as to whether the iron ore could be quarried?—Yes. It is just opposite to my house on the surface. It has never been tested. There was never any market for it.

Mr. Hudson—continued.

2490. Have you any idea as to what depth they would have to go to quarry it?—It is on the surface, but I don't know how deep down it is.

2491. Is there a general opinion that there is a very large quantity of it?—I don't think that there is any opinion at all formed of it. It is just there. It requires capital to develop a thing like that, and we have no means of doing it.

Colonel GUTHRIE.

2492. With regard to the feldspar, has any expert opinion been got in regard to it?—This gentleman who was down about Frenchport said that under present conditions it would not pay to develop it.

2493. Was he an expert?—Yes, in regard to feldspar, and stone ore too.

2494. What is his name?—Mr. Crilling. He represents Thomas Ward and Sons, Sheffield. I sent him a sample of this iron ore.

Mr. Field.

2495. Has any geological survey been made?—No. If you found that it was very valuable it would be no use, as there is no means of getting it away. Want of transport facilities stops all development. The "Turbin" and motor service are only excuses for transport.

2496. Apart

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Mr. BRINGHAM.

[Continued.]

Mr. Keating.

2495. Apart from the railway, if you had a good pier could you find commodities to get full cargoes to send away?—Mr. Keating mentioned to me that his company would consider getting this stuff away if they had a pier convenient to the quay at Freshport.

Chairman.

2497. How near to the quarry could that pier be?—The nearest point to the quarry where you could have a pier would be about a quarter of a mile.

2499. What depth of water could you get?—It is a

Chairman—continued.

good depth. It is, however, rather dangerous to get in. They cannot get in in the winter.

2499. How near to the quarry could a pier be put that would be available at all times?—About three miles.

Chairman.] We are very much obliged to all the witnesses who have given evidence. We will make a report to our Main Committee and tell them what we heard here in Belmullet.

(The Sitting then concluded.)

FOURTEENTH PUBLIC SITTING: FRIDAY, 20TH SEPTEMBER 1918,

At the SLIGO HARBOUR OFFICE, SLIGO, at 2 p.m.

MEMBERS PRESENT—

Colonel John Gretton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.
Mr. P. J. Harrold.

Mr. PHILIP MACNEULTY, Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

(Chairman.) May I say, first of all, why the Sub-Committee is here? On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements, and to make recommendations. The Select Committee appointed a Sub-Committee, of

which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have visited a number of ports, and we have now come to Sligo. We are anxious to get information regarding the transport facilities and suggestions as to their improvement, in order that we may be in a position to report to our Main Committee at the beginning of next month.

STATEMENT BY Mr. T. SCARLAN, M.P. FOR NORTH SLIGO.

Mr. Speaker.] Sir Arthur Shirley Benn and members of the Sub-Committee, on behalf of the people of Sligo I bid you welcome here. We know that there is nothing that the people of Sligo desire more than to see the development of the town and port of Sligo. And anything that is done to improve the transport facilities of the port, or in the way of developing the resources of the district, will tend to increase the prosperity of the town and provide employment for the working men of Sligo. For a considerable time past the Harbour Commissioners of Sligo have been hammering at the various Departments of Government to procure provision for developing the harbour, and, if I may suggest to your Committee as a short way of conducting the inquiry, it would be well to hear from the representatives of the Harbour Board

the scheme which more than a year ago was presented to the Admiralty and to the Shipping Controller for the development of Sligo Harbour, and also a scheme of long standing which Sligo has presented, and which the Chairman of the Harbour Board, the Vice-Chairman and other members are here to support and explain. You will also have an opportunity of hearing the views of the Mayor and Corporation of Sligo, in regard to the development of their port and the facilities for improving the business of the town and port. We have also here representatives of the Trades Council of Sligo, who are specially interested in labour questions, and who will support any appeal that would be made to this Committee for the further development of the town and port.

Lieutenant-Colonel JAS. CAMPBELL, D.L., Chairman, Sligo Harbour Commissioners, called in; and Examined.

Chairman.

2500-1. You are Chairman of the Sligo Harbour Commissioners?—Yes, since 1906.

2502. You are going to make a statement to us in reference to the port?—Yes. In the first place I had better state that Sligo is situated 137 miles north-west of Dublin; latitude 54.16 degrees N., longitude 8.23 W., lying midway between Galway to the south about 200 miles, and Londonderry to the north about 200 miles (short distance). It is the most important port on the north-west coast of Ireland, and, prior to the war, carried on a large grain trade from Argentina, Danube, and other overseas ports. With regard to the approach entrance to the harbour I would like to point out that vessels coming to Sligo approach through Sligo Bay and enter the outer harbour south

Chairman—continued.

of Raughley Point, at Wheater Rock Bury, where sea pilots take charge. The approach and inner harbour are well lighted and buoyed. Being a tidal harbour, the vessels drawing from 20 to 30 feet of water cross the bar at high water, and vessels of up to 5,000 tons cargo and drawing 22½ feet, have come from sea to the deep water berths direct. Should the tide not be favourable for coming direct from sea to deep water quays at the town, vessels lighten at mooring buoy berths at Roscoe Point, and, when brought to a suitable draught, proceed up the river to the quays. In that regard I should mention that there is at present only 15 feet of water at the outer bar and vessels have to anchor outside until high water time, when they get over the bar.

2503. Is

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Lieutenant-Colonel CAMPBELL.

[Continued.]

Chairman—continued.

2503. Is there safe anchorage there?—Yes, quite safe. When I was making an application in connection with the harbour to the Shipping Controller last year, we were rather turned down at once on the question that it was not immune from the submarine menace, and I came back to Sligo and reported to my Board, and we prepared a scheme. Mr. Chute will give you evidence on that scheme. The Admiralty then expressed themselves satisfied if that were carried out that vessels could come in to Pool Day anchorage at Roscoe Point. Much has been done by the Harbour Commissioners in recent years to improve the harbour generally, with the result that the existing charts cannot be taken as a criterion of the altered conditions as to deep water and better navigable waterways. Now we come to the proposed direct channel from the sea to Pool Day anchorage. Between the open sea and Pool Day anchorage there is a partly formed natural channel, which only requires suction dredging to make it navigable for over-sea vessels. A survey has been made of same, and the result is embodied in plans and report of engineers. If this channel were cut it would provide a direct passage from sea and avoid the bar. The Pool Day anchorage, which has a depth of water of from 30 to 35 feet at L.W.O.S.T., is immediately outside Roscoe Point, and has safe accommodation for two or three large vessels at the same time. It is also well sheltered, and has good "holding ground." There is a mooring buoy berth at Roscoe Point where vessels can discharge into lighters. This berth was originally dredged to a depth of 24 feet at L.W.O.S.T., but at present the depth is about 33 feet (36 feet H.W.S.T.), with a foot of silt. It can accommodate a vessel 400 feet long, but could be extended as well as deepened for two or three times that length at moderate cost. If a pier were constructed at this berth, with a railway to Sligo connected with the three railways serving the town, it would obviate lightering, save time handling cargo, and facilitate distribution. From Roscoe Point to the quays at Sligo is about four miles, and the river channel has a depth of about 32 feet of water at H.W.O.S.T., but vessels drawing as much as 23½ feet of water have come up on high spring tides. This depth could be easily increased by several feet. The deep water berths, used for overseas traffic, have a length of 300 feet, of which 400 feet has a depth of 18 feet at L.W.O.S.T., and the bottom is composed of soft mud. These berths could be extended and deepened indefinitely. Railway siding, connecting with main line of railway, runs alongside the berths, and cargo can be discharged from the ship into wagons. There is a large transit shed on this quay which accommodates about 2,000 tons of grain, also a coal depot and corn mills. About three acres of land suitable for building purposes, and a quantity of free-shed, unenclosed, adjoins the quays. To the east of these berths there is close on half-a-mile of quays, used by the coasting and small overseas traffic, and the accommodation provides for vessels to up about 16 feet of water and 1,000 tons cargo, with ample shed facilities. I may say that the berths are dredged to 10 and 11 feet at low water spring tide. The depth of the water at the different places hereinbefore referred to are—Sligo Bar 24 to 25 feet at H.W.O.S.T. and 12 feet 4 inches at L.W.O.S.T. This is the least water at any place from sea to mooring buoy berth at Roscoe Point.

2504. What is that bar—and or what?—Sand. A suction dredge would remove it. We are of opinion that it is all sand. The Pool Day anchorage, 63 to 67 feet at H.W.O.S.T., and 50 to 55 feet at L.W.O.S.T. Mooring buoy berth, 35 to 36 feet at H.W.O.S.T., and 23 to 24 feet at L.W.O.S.T. River Channel, 22 to 25 feet at H.W.O.S.T., and 10 feet at L.W.O.S.T. Deep water berths, 30 feet at H.W.O.S.T., and 16 feet at L.W.O.S.T. Upper Quay berths, 19 to 20 feet at H.W.O.S.T., and 7 to 8 feet at L.W.O.S.T. The town of Sligo is served by three railway systems—viz. the Great Southern and Western Railway, the Midland Great Western Railway, and the Sligo Leitrim and Northern Counties Railway. The Great Southern and Western Railway connects with Galway, Limerick, the South of Ireland, as well as with Dublin and the South-east coast. The Midland Great Western, connecting with Dublin, Galway, Westport, and Ballina

Chairman—continued.

serves the whole West and Midland Counties, and portion of the North as far as Charn. It also connects with the Great Southern and Western Railway, the Sligo, Leitrim and Northern Counties Railway, and the Great Southern and Western Railway. The Sligo, Leitrim and Northern Counties Railway connects with the Great Northern Railway Company at Enniskillen, giving access to the North of Ireland and North-east coast and Dublin. With regard to facilities, I may state that at Bangor there are coastguard and pilot stations and telegraph office. At Roscoe Point there are coastguard and pilot stations, as well as telegraph and telephone office. Deep water berths, one large transit shed, coal depot, and large corn mills, Upper Quay. Custom House, railway goods store, three transit sheds, two large oil tanks, into which oil can be pumped from steamer, bonding stores, slag mills and stores, large corn mills, basin and beam-weighing facilities, and extensive stores. At Ballisodare, four miles from Sligo, on the Midland Great Western system, there are large corn and flour mills. We have a schedule (prepared) from 1907 to 1916 giving a return of vessels from overseas that have been discharged at the Port of Sligo; and showing the draught of water, tonnage and description of cargo.

2505. Can you tell us, was the trade increasing up to the time of the war?—1907, I think, was our high-water mark here. We can give you one of these returns. We have not gone to the expense of printing them since 1914. I will hand in a return (Produced). Our revenue in 1885 was £4,000, in 1914 £7,220, and there has been a gradual increase year by year except in this respect, that part of the time the dues were increased, which made the total amount of receipts greater. In 1885 the dues were increased, and that year our revenue from all sources was £5,420.

2506. Can you tell from that return what the volume of trade was in 1906?—Yes. It is all down in the return for 20 years. During the ten years ending December 31st, 1913, 236 vessels from overseas made use of the port, representing a tonnage of 264,971, and during the same period the number of coasters was 4,382, with a tonnage of 627,377. During the five years ending December 31st, 1917, the following food-stuffs were imported:—Bacon, 9,138 tons; flour, 53,566 tons; maize, 195,226 tons; sugar, 28,760 tons; wheat, 24,447 tons; oats, 1,135 tons, making a total of 303,886 tons.

2507. Can you say something about the export trade, too?—The exports are detailed in the Return. They have gradually decreased from 1894. They are down in 1914 to 2525. With regard to the port expenditure, I should say that loans of £20,000 and £18,000 were obtained from the Board of Works at intervals from 1880 to 1886, which were expended in constructing Deep Water Quay, deepening the channel from Roscoe Point to Sligo, and improving deep water berths. These loans have been paid off, and the debt consolidated by a debenture issue to the public of £50,000 at 4 per cent. A grant of £30,000 was obtained from the Government in 1888, and (without the exception of a small sum not yet received) has been expended under the supervision of the Board of Public Works in Ireland, in the forming of mooring berth at Roscoe Point, in the improvement of channel at Roscoe Point and near the town, and in the construction of a training wall from Cooney Island to the Blackrock Lighthouse in the outer harbour. In addition, all the available revenue has been expended on improvements and plant, making in all over £100,000.

Mr. Hanson.

2508. You spent £100,000 on the development of the port?—Yes. The immediate improvements that are required for the port are the channel that Mr. Chute will give you evidence about, and a railway scheme from the Midland Railway terminus here to Roscoe Point.

Chairman.

2509. Is the railway company prepared to make this?—They were prepared to give the necessary slopes and rails this time last year; whether they are prepared to do so now, I don't know. There is the development scheme.

2510. Can

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Lieutenant-Colonel CAMPBELL.

[Continued.]

Chairman—continued.

2520. Can you tell us what is the cost of this new scheme before you go to the higher one?—£75,000 would be sufficient. This time last year we were told we could get the channel dredged for £12,500. The engineer now thinks that to be on the safe side he would put it at £25,000.

2521. Is that for dredging only?—Yes.

2522. That has nothing to say to the railway?—The railway part of the scheme is £50,000 or £60,000. That scheme is in the Irish Office.

Mr. Field.

2523. Whose scheme is it?—It is part of the whole scheme.

Chairman.

2524. Was this £50,000 the estimate last year?—Yes.
2525. Would that mean that this scheme would cost £110,000?—£75,000 was the estimate for the dredging of the channel and the railway to Rossea Point. This other scheme had more to do with the improvement of the channel from the mooring buoy berth at Rossea Point to the quay proper at Sligo. The quay front at present is built of solid masonry, but it is not of sufficient depth to dredge alongside, and that would have to be reinforced. That would be costly. We have the full particulars of that scheme. (Proceeds.) Our wooden jetties at the present are a great source of expense to keep up. This is the plan of Mr. Mallagh; the estimate for the scheme was £100,000.

2526. What is the total amount of money that you require?—£300,000 should be ample.

2527. That would give you what water?—The trouble with the Harbour Commissioners is that we look upon the improvement of the outer harbour as the principal thing; there is no use in doing the inside harbour until the outer harbour is right for vessels drawing 24 feet of water or so.

2528. When you get them to the outer harbour they anchor at Rossea Point?—We should handle our railway stuff at Rossea Point instead of at Sligo.

2529. That would be rather unsatisfactory?—It might be for Sligo millers, but not for the millers further away who have to put it on the railway. In any case, I think 18 feet of water is as much as I could safely say would be in our scheme.

2530. Do I understand Sligo would be satisfied with having an outer harbour only?—I think they would not and ought not to be.

2531. I presume your only reason for supporting the second scheme is because you think it better first to get one mouthful and another later on?—That is my own view, but Mr. Jackson will give you his.

2532. Can you give us any idea of the percentage of the cargo that would be for Sligo proper and for distribution in the adjoining counties?—It is all for distribution in this and surrounding counties. Four-fifths would be utilized in Sligo or the locality. This is the development scheme that is before the Development Commissioners.

Mr. Hanson.

2533. Do they hold out any hope of giving you a grant?—Yes, for a long time. Mr. Scanlan, M.P., interested himself in the matter, and there was considerable correspondence, but the scheme was turned down because it was held to be commercial.

Mr. Field.

2534. Is not all development supposed to be commercial?—That was the answer we got.

Chairman.

2535. We want to know the various things that are brought in here to this point?—It is set down in the report I have handed in.

2536. Is there anything else you would like to add?—Unless you wish to ask me any questions. I will be happy to answer them to the best of my ability.

Colonel Greville.

2537. There are three railways serving the town of Sligo?—Yes.

2538. Are there three serving the harbour?—Yes.
2539. And are the facilities for discharging at every one of the three railways sufficient?—At the moment they might not be if there was a large trade, but the ground is there.

Colonel Greville—continued.

2540. There is no difficulty in sending goods to any destination by any railway?—Not the slightest. Colleeny is the junction. There is a double line close to Ballysodane, and the lines run in and use the terminal of the Midland Great Western Railway at Sligo.

2541. How are the funds of the harbour collected?—By dues on ships and dues on cargo. I would, however, rather Mr. Jackson would speak on that. We have taxed ourselves almost out of existence. In addition to the dues, we also get some rents on the quays amounting to something like £200 a year. The Mayor has two places himself.

2542. You have still loans outstanding?—Yes.

2543. How do you propose to finance the improvements of the harbour?—We cannot finance them at all. We cannot undertake any improvements from ourselves at the moment. Our debt is £2,300 a year, the interest on £20,000 and our dues are down to £2,000.

2544. Before the war, I think you said, they were £7,000?—Yes. About £8,000 would be about our high-water mark.

Mr. Hudson.

2545. I understand that you feel quite confident that, if this harbour construction were carried out to your satisfaction, you would have no difficulty with the Midland Railway?—I don't think the Harbour Commissioners would allow any company to put their railway lines on their property. What we have already done is this—the Midland constructed a line, paid for by the Harbour Commissioners, from their terminus to the end of our deep-water berth, for which they made a charge—of that charge we got one-half. That is another item of revenue.

2546. You prefer to put the lines in yourself?—On our ground, yes.

2547. And join up with the Midland?—Certainly. At least, that has been the idea; that has been the feeling of the Harbour Commissioners at Sligo.

Mr. Field.

2548. I take it you look on this railway connection as one of the most important features of the improvement—that is, to Rossea Point?—For overseas traffic, yes.

2549. If you get that overseas traffic would you have any cargo outgoing—would you be able to give any loading to the vessels?—I don't think I could safely say we could. With the development of Arigna we might be able to supply them with bunker coal, but I cannot say that the coal would be in sufficient quantities for shipment.

2550. Supposing you did get these big vessels, how would you supply them with bunker coal—have you any means of supplying them?—We have no crane.

2551. Have you no hand crane?—No. There is no movable hand crane.

2552. How do you carry on?—Cargo is discharged by ship's crane.

2553. I thought one of the principal attractions of a port for ships are the facilities with which they are loaded and unloaded?—I quite agree, and no man would be better planned than I to have the proper facilities put up, but you must cut your coat according to your cloth.

2554. If you get more stuff in here you would have more labour and greater development?—Of course, and we could supply a very much larger radius.

2555. Have you a dredger of your own?—We had.

2556. What became of it?—We sold it to a firm in Scotland, and I think it is now working in Scotland.

2557. What did you get for it?—The exact amount is something under £15,000.

2558. I suppose you liquidated another debt with the dredger?—I may say that we have at the moment £11,000 of that in War Stock—the only money that we have to keep us floating at all, and we paid off some debts that were due—£4,500.

2559. I am interested in live stock. I understand the shipment of live stock from Sligo has decreased very much in recent years?—Well, there were a great many reasons for that, because the sailings were prevented by the Admiralty. Those were reasons not within our control. The Company with which I am connected never missed a sailing for 40 years.

2560. The

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Lieutenant-Colonel CAMPBELL.

[Continued.]

Mr. Field—continued.

2548 The stoppage of the sailings by the Admiralty of course lessened your revenue?—Yes.

2549 You said, I think, that the Development Commissioners refused to give money to your Board because it was for commercial purposes?—I think that is the wording of their communication. The principal objection was that it was for a commercial enterprise.

2550 It seems to me an extraordinary reason that the Development Commissioners should give, that they refused the loan because it was for commercial development?—That was the reason.

Mr. Hanson.

2551 Sligo serves a very large area in the West of Ireland?—Yes.

2552 Having regard to the radiation of railways from Carrington, what portion would be properly served by Sligo?—Seven counties.

2553 With the efficient development of the harbour at Sligo there would be greater opportunities of serving the requirements of seven Irish counties?—Yes.

2554 If you take the county of Sligo and Leitrim and the portion of Mayo served by Sligo, it is the most densely populated part of rural Ireland?—I think so.

2555 And the railway connections are excellent for all that area?—I think it is all fairly well served except Arigna.

2556 In the development of the port you have the sympathy of the Railway Companies serving the port?—I can speak for one of them and say yes, and Mr. Jackson also speak for another.

2557 Sligo is a very important milking centre?—Yes.

2558 And in this part of Ireland the distribution of maize is of great importance to the local population?—It is more important since we were not able to get it.

2559 Of the 304,000 tons of foodstuffs imported during the five years ending the 31st September last, what proportion of that would be for your own trade?—The larger part of it.

2560 Would you say 90 per cent. of the total?—Practically all the maize and bacon and sugar, and nearly all the wheat and oats.

2561 And these are all items necessary for the food supply of the people?—Yes.

2562 And in your view, with greater port facilities, would the import of foodstuffs at this port be greater?—Yes, because we could buy at a cheaper rate and send at a cheaper rate and compete at a greater distance.

2563 Would your coast trade improve side by side with your imports from overseas?—I think they would, because the stuff that comes across from England and Scotland is what the community purchase. If the place is prosperous they have more money to get furniture and these kind of things that form a large proportion of the general cargo brought in.

2564 Has not there, from time to time, been a scheme outlined in the neighbourhood of Sligo for quarrying or mining apart from Arigna?—I don't know that there ever has been.

2565 With regard to the Arigna scheme, how does the development of the Arigna district affect the port of Sligo?—It ought to affect it very well. It would give us coal, for one thing.

2566 There has been a project of getting in touch with Arigna from the Sligo, Leitrim and Northern Counties Railway?—There are two schemes, one to join it at Donaghadee and a larger scheme to join at Ballysolon.

Mr. Hanson—continued.

2567 Anyhow, there has been a general desire on the part of the people of Leitrim and Sligo to have some access to the Arigna mines?—Yes.

2568 And that would enable the port to provide coal for bunkers?—Yes.

2569 In your view has the spirit of industrial development improved in the West of Ireland?—I should say it has, but they think these things are well-off-the-wisps that are hung out before the people—that these different schemes that they have been hearing of for a great number of years don't mean anything.

2570 Do you think that if practical opportunities were afforded to the people of the West of Ireland to improve their social and economic position that they would avail themselves of them?—I am sure they would.

Mr. Lindsay.

2571 I take it that the harbour requires dredging from time to time?—By these particular improvements that we have been able to carry out, the channel of the river has practically maintained itself—that is the channel per se. We could not afford to keep the dredger. Your own city of Belfast had the benefit of it for two years, and Larne had it for a year and a half. We were offered £15,000 for it. We purchased it at £21,000 and she was 24 years old, so that we came to the conclusion that we were making a good bargain in selling her when we could not afford to keep her.

2572 You did not deal in your evidence with the transatlantic port?—I would like to say this about it—that we have no scheme prepared to go before this Committee, but what we would ask the Committee to do is that, before any port is selected, a special report should be made on Sligo. There is a direct run in from the sea.

2573 Would the existing railways serve the transatlantic port?—Of course they would have to be improved.

Chairman.

2574 Do you consider that your harbour could remain as it is to-day without dredging?—I am quite certain that it could not, but we have a small dredger that we put on in an emergency. A berth could be cleaned out with it. Our other dredger was a bucket dredger, and of course it was very expensive to run.

2575 Won't you need a large dredger?—Undoubtedly, if we had the money to get it, but where it is to come from is what I want to know.

2576 Surely it was a very dangerous thing to sell your dredger when you needed it for yourself?—I admit that, but our existence depended upon selling it. We could pay nobody. It was a matter of life and death.

Mr. Keating.

2577 We were informed at Belmullet yesterday that there was a great difficulty in getting foodstuffs and cattle away from this port?—Yes, because the sailings have not been regular from Sligo, through Admiralty cause.

2578 In view of the shortage of foodstuffs in Great Britain it is a very lamentable fact that the Admiralty are not giving sufficient facilities to get cattle and goods away from the port. We were informed yesterday that thousands of pounds worth of goods perished because there were not the facilities at Sligo to get them away?—I think that may be quite true. You could get that evidence direct if you wished.

Chairman [We are very much obliged to you.

Mr. ARTHUR JACKSON, D.L., Vice-Chairman, Sligo Harbour Board, called in; and Examined

Chairman

2579 You are Vice-Chairman of the Sligo Harbour Commissioners?—Yes.

2580 Do you agree with the evidence that has been given by Lieutenant-Colonel Campbell?—I do. I quite endorse everything he has said. I would like to lay a good deal of stress upon the application that we are making for a Government grant. In a great many cases where Government money is asked for, and very often where it is expended, the results are not reproductive, but I am quite satisfied that if the grant which we are now looking for were made it would be

Chairman—continued

reproductive in every sense. I was Chairman of the Board for a good many years. I would like to take you back to the year 1880, when there was simply a rough embankment down to where the present deep-water berth is. There was no railway and no facilities for bringing vessels past Recess Point, with the result that the vessels were all discharged down there. The cargoes had to be lightered up. The Harbour Board made every exertion to try to get vessels of a larger size up to Sligo, and they entered into several contracts with Scotch contractors and others for carrying out improvements.

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Mr. JACKSON.

[Continued.]

Chairman—continued.

representations on money which had to be borrowed from the Board of Works at the rate of 8 per cent—4 per cent interest and 4 per cent in payment of capital. We had to get their permission for any other improvements we made. I found that the greater portion of the money we expended had to go in paying here on the contractor's dredger. We therefore decided to float an issue of £50,000 stock, paying off the Board of Works loan and obtaining £25,000 as well to build a dredger. We got the whole of the loan floated at 4 per cent. The money we got for the sale of the dredger recently was put into War Stock, so that it will be there to replace the dredger after the war. It is a neat egg for that purpose. Some of us expect the war will last for ever. There may be a plethora of ships later on, and the question of dredging may be easily got over. I would like to impress upon you that the immediate effect of our spending money in improving the harbour was a large increase in maize imports. The imports in 1888 were 19,600 tons. In 1905, when the railway was constructed to the deep-water berths, the imports from foreign ports alone of maize were 55,000 tons (in money it roughly means £150,000 in 1888 to £300,000 five years afterwards), and from that it has practically continued. Our average is from 40,000 to 45,000 tons a year in maize alone. The greater part of that is ground in the mills at Sligo and the immediate district. We are able to compete with Belfast and other ports. Since that date—take my own business—I have business with the coasters of Sligo and Lerrin, and portions of Galway, Mayo, Roscommon, Fermanagh, and Tyrone. Our business is so large in Fermanagh that we have to have a resident traveller there. He lives there. I am perfectly satisfied that if we could get the bar deepened—that is, the outside bar—so that these larger ships could come in, maize could be purchased at anything from 3d to 4d a quarter cheaper, and we would be able to do a much larger business.

Chairman.

2582 How many tons per day can you discharge at the port?—We have discharged, with the men we have here, as much as 500 and 700 tons. The general average would run to 400 or 500 tons, but I do not know of any place where, with such few facilities, better work is done.

2583 You have not got the facilities?—They will come. If the larger ships come, instead of discharging employment there would be steady work, and the facilities would be improved.

2584 Is it a fact that in the charter there is a clause put in that for vessels coming to a port like Sligo an extra shilling is charged?—Yes. Mr. Scanlan, M.P., will bring me out when I say that from the first day he has represented this constituency we have been trying to improve the port, and I should like to express to him my indebtedness for his exertions on our behalf. It certainly is not his fault if the improvements we wanted to carry out are not now under weigh. I would like to mention that when we were able to make such an increase in the volume of our business with a comparatively small expenditure, that we could increase it a great deal if we had the facilities we are now seeking for getting in larger vessels. In regard to the railway to Roscoe Point, the difficulty is that all these ships are getting bigger in every way, and there is trouble in bringing them up a narrow river. The ideal thing to do would be if we could get the whole river widened and dredged to Roscoe Point, but if that is not done the next thing is to bring the ship to Roscoe Point, where the men can travel in comfort by the railway to their work. At present we have to pay railway freights from Sligo to our mills at Ballycastle, where our business is carried on, and we do not find it any drawback. Every penny of excess revenue that the Board raised has been spent on harbour improvements. When we found that we had so many things to do to enable these ships to come, we voluntarily increased the dues upon ourselves to the extent of a hundred per cent. The dues upon maize were increased to 10d from 5d, and on wheat to 1s from 6d per ton, and at that time the dues in Belfast were somewhere about 3d or 3d. I want to show what we have done ourselves towards effecting improvements. If we could go on, I would prefer it to asking for a grant. If the Government would advance the

Chairman—continued.

money that we require, after we would have reached our normal revenue of £8,000 we would be willing to pay them back a sum of money on the average over that. The only object would be to see that the port held its own. Look at the position that we have been placed in since the war broke out. We have gone to London several times to get cargoes direct to Sligo, but we could not get the Shipping Controller to agree, as all the vessels have to be conveyed. We never lost a vessel until they did begin to convey. In the first year of the war we brought in 40,000 tons—about 16 ships, and the only ship that was over lost was the ship that was conveyed to Chisleborough Haven and then set adrift to go to Sligo. There is no reason why an occasional vessel would not be diverted to Sligo. Then came the provision that no maize was to be used as cattle feed. That knocked our maize business on the head, and meant a serious loss to our mills as they are to-day without an ounce of maize. It also had the effect of being a great blow to the cattle industry. People who lived entirely by feeding their pigs and young calves were suddenly deprived of the only food they had been using. This was the most serious blow that the port had suffered. About exports, these large ships coming in and going out light have to do that at nearly every port. There is no greater disadvantage in that respect in the case of Sligo than with other places. I may mention that there has been a steady inquiry from people in England in regard to the starting of industries in the West of Ireland, and if we had these facilities there is the possibility of a big export trade being done in such commodities as manufactured cement. What has injured our export is that the boats that were the mainstay of this port have ceased coming. In my own time we were able to ship cargoes of 500 tons of oats weekly, but we would not get that quantity in two years now. So far have things changed in that respect that we have had to import cargoes of oats to the quays of Sligo. In connection with the railway to Roscoe Point, the Midland Great Western Railway—I am a member of the Board myself—said that they would give everything that would help us in the way of rails and sleepers. The Board of Works also believed that they could get timber for us. The Board of Works have given most valuable assistance to Sligo, looking on it as a place that ought to be developed and would be reproductive in the sense I have mentioned. Some gentlemen asked the question if the coasting trade would be improved if there was a larger foreign import. It would in this sense, that nearly all the coaling of these steamers has been done from Sligo. The coal is put in while the cargo is being discharged, so there is no delay or difficulty in that way, notwithstanding our want of facilities, but, if we developed a larger trade, facilities would be forthcoming. That would have the effect of increasing the coasting ships importing coal. I don't think there is anything else I have to say.

Chairman.

2585 If Sligo is developed, do you think you would get a good coasting trade?—I think it would improve. The Sligo Steam Navigation Company runs the "Tartar" for the Government. I have been Chairman of the Company for many years. We are the only company that has attempted to run their steamers, for the sake of keeping up our trade with the port. The Glasgow boat, which is partly responsible for the falling off in the export of live stock, was withdrawn shortly after the war through loss of steamers. We have lost some of our vessels, and nearly every month I have been making out a case with Mr. Burgess to prevent our steamers from being withdrawn.

2586 Yesterday we had a great complaint in Belmullet about the working of the "Tartar."—The "Tartar" is a very small boat, and it has been a great boon to these people. In spite of all the complaints that were made, when there was a question of its being withdrawn, there was then no question as to the boon she was. I think some of the complaints may be a little exaggerated. I know that the boat runs as regularly as she can. She has to wait until she gets a cargo. When she gets 50 or 70 tons, which is a great convenience to these people, she goes. When a cargo is ready the boat sails at once.

2587 They complain in Belmullet that they had to send their cattle by road and that they could not

count

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Mr. JACKSON

[Continued]

Chairman—continued.

count on when the "Tartar" would be there to take cattle from them?—All I can tell you is that if they have sufficient cargo to load the boat, she will be despatched from here at once, but we cannot get the cargoes.

2587 You have been getting some coal from Arigna?—Yes, for our local gas company, and for some of the institutions. I cannot say that I have any personal knowledge of its burning qualities. I heard some years ago the Secretary of the Dublin Tramway Company would take every ton of coal the company could turn out, but that at times it was not possible to get it, and that therefore they had to change.

2588 Do you think, with the development of Arigna, that you would get the coal?—Yes. It might improve in quality as they get deeper down. Some of the officials of the local institutions told me it won't burn as well as other coal. They use it on the Carron and Leitrim Railway.

2589 Do you think that if Sligo was developed that you would get a bigger export trade?—Yes. I think the whole West of Ireland is still an unknown country, so far as industries are concerned. It must be developed and brought into closer touch with the outside world.

Mr. Lindsay.

2590 About the "Tartar," why did it cease to carry passengers?—At the present time, and in some time past, my company have been running the "Tartar" without one penny compensation, solely to keep it going. The Board of Works had a subsidy, which unfortunately was not like the Congested Districts Board, a capital sum, and this came to an end two years ago, when the Congested Districts Board handsomely came forward and gave a subsidy.

Mr. Haasson.

2591 Don't you think the West of Ireland, owing to the peculiar circumstances, has a definite claim for assistance from the State?—I think so. It must be borne in mind that in Belfast they have more advantages—they have more mineral wealth.

Mr. Lindsay.

2592 No mineral wealth?—I heard of vessels trading in 1860 or so.

Mr. Haasson.

2593 Would the employment of labour in Sligo—the number of people employed—be enlarged if the port were developed?—Yes.

2594 The labour is available?—Yes.

2595 And the people in the West of Ireland are an industrious people, if they get the chance?—Yes.

Mr. Field.

2596 From an Imperial point of view, are you of opinion that more food could be produced in these seven counties that are served by Sligo and exported to England—potatoes, poultry, fish, etc.—if you had facilities?—There is no reason why it should not.

Chairman.

2597 With regard to the import of wheat, are the mills here working full time?—They are working night and day, but the trouble is that we can only get out wheat from centres like Belfast and Dublin, and, on account of the delay in getting it, we are working night and day when we have the grain.

2598 You are stopped sometimes on account of the want of grain?—Yes. If we had the proper transport facilities we could bring in direct cargoes ourselves at much less money. We could bring in some of the Australian cargoes which we have to get from Dublin and other ports.

Mr. Field.

2599 If you had these transport facilities would the live stock trade be catered for?—I should say so. The cheaper such articles as manure are the better it is for the cattle trade.

2600 Is it your view that the want of manure has interfered with the fattening of cattle and pigs and therefore reduced the food production which is so essential?—Yes. I was told that people sold off their

Mr. Field—continued.

pigs when they could not get manure meal. Swindon is near the sea and is a big centre for pig rearing. (The poor law grouping about it represents 90,000.) I heard that the people there sold off their young pigs when they could not get manure meal.

2601 You are of opinion that if the manure were sent in such manure pork would have been produced?—Yes. There is no other feeding stuff except small potatoes.

2602 And the want of manure has also absolutely prevented the stall-feeding of cattle?—To a large extent.

2603 If this money were laid out on the port, whether on the internal improvement or on the external improvement at Roscoe Point, you are convinced that it would not alone tend for the prosperity of the island, but would be useful on the other side of the Channel?—Yes.

Mr. Hudson.

2604 I think you said that the grant by the Government would be for the benefit of Irish national trade?—Yes.

2605 I think you also said that Arigna coal was used by the Carron and Leitrim Railway?—Yes.

2606 Have you any idea with regard to this coal, whether if you got the type of vessel that you want—say vessels up to 8,000 or 9,000 tons—that you would be able to coal these vessels here with suitable coal?—If we were back to normal times the Arigna coal ought to be cheaper for the purpose than Scotch coal, even if the Arigna coal were not quite so good. In making this statement, for all I know Arigna coal may be very suitable for bunkering purposes.

2607 You will agree with me that the larger size vessels that you get here the greater is your volume of all ships?—Yes. The volume of trade and the volume of employment.

2608 That naturally follows?—Yes.

2609 With regard to this railway at Roscoe Point I am not exactly clear. I think you wish the Government to do it?—Yes, and the deepening of the bar, which is the first essential.

2610 Would this connect with your line?—I think the Government would either hand it over to the Midland Great Western Railway Company or control it themselves, with the condition that it should be open to any of the other three railways.

2611 They would either give it to you or lease it to you?—It would have to be one of the two.

Colonel Greville.

2612 Has any Government grant been applied for?—Yes, that was the basis of Colonel Campbell's application.

2613 Was that application made on account of the war conditions?—Yes. It was pointed out that vessels coming to Sligo Bay at low water run the risk of being stranded.

2614 Had any application been made previous to war for any grant?—When they gave us the £20,000 it was only part of what we wanted then.

2615 Had you the money on loan, or was it a free grant?—As a free grant. I believe the advance now asked for would be of such benefit from the reproductive point of view that, if we were back to our normal reasons, I would be glad to repay part of it in principal and interest, but I would not like to be compelled to pay a fixed sum.

2616 What improvements do you want most?—I look upon the dredging of the outer bar as most important.

2617 And the next?—The railway at Roscoe Point, to be able to discharge ships more quickly when they came in. There would be two lines of rails, so that waggons might be loaded out of these big ships at one side and discharged out of the sheds into waggons on the other side.

Chairman.

2618 Do you know the cost of dredging the outer bar?—A rough estimate would be £17,500, but, on account of the increased cost of materials, it might run to £25,000. The great advantage of that would be that all our ships would be able to come in straight. Sligo Bay is about the only place where at the approach there are no islands or rocks. There is practically nothing between Sligo Bay and America.

2619 You

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Mr. CHUTE.

[Continued.]

Mr. J. H. CHUTE, M Inst C.E., Consulting Engineer to Sligo Harbour Board, called on; and Examined.

Chairman.

2019 You are consulting engineer to the Sligo Harbour Board?—Yes. I am not their engineer, but I have been called in.

2020 You will give us some evidence in regard to the proposed improvements?—Yes. Between Rosses Point and Sligo, and on the southern side of the river channel, there are about six square miles of sandy flats known as the "Canness Strand," which are covered at high water. In 1905, when the last Admiralty survey was made, portion of the water from this ebbed through the main river channel near the "Metal Man," but the larger portion passed through a deep aulack out between Oyster and Conny Islands. The resultant flow of the two currents, meeting near the "Metal Man," took a northerly direction and reached deep water by a large semicircular sweep to the West between Black Rock and Rangleigh Point. In 1904 a free grant of £25,000 was made by the Treasury for the improvement of the Port of Sligo. Some of this money was spent in dredging the deep water berth at Rosses Point, where vessels drawing 22 feet can lie; and some was spent in dredging and deepening the navigable channel to Sligo Quay; but the major portion of the grant was devoted to increasing the height of the natural mound known as the "Clackhorn," which juts out from Conny Island to the Black Rock, and deepening and straightening the river channel at the Blennicks by dredging. The mound of the "Clackhorn" was raised to prevent the passage of sand across from the south, the general set of the current along the coast being southerly. The dredging in the river channel near the Blennicks has induced a larger volume of water to flow through it, with a corresponding reduction in the flow through the other cut, and the resultant flow has assumed a more westerly direction than formerly. The effect of the last two works has been a most remarkable improvement in the depth of the water in the outer

Chairman—continued.

harbour, especially near and beyond the Pool Day anchorage. The level of the Burger Sand Bank has been lowered on almost its whole area. This is still taking place, and a new channel is beginning to form in a line nearly parallel with the "Clackhorn," and much straighter than the old one followed at present. No dredging has ever been done outside of the "Metal Man," and it is now suggested to complete the formation of the new channel by section dredging to a depth of 24 feet at low water, with a bottom width of 300 feet. The material consists of fine loose mud, and it is anticipated that once the channel is dredged the tidal flow will be sufficient to maintain it. We calculate that there are about 800,000 cubic yards of sand to be removed, but we think it advisable to reckon upon 1,000,000, and the cost at £20,000. We believe this quantity can be dredged and the channel made complete in less than three months' time if two large section dredgers, such as are used on the River Mersey and by the Dublin Harbour, are employed. An alternative channel following more closely the line of deepest water, having an easy curve, and on which the quantity of excavation will be somewhat less, is shown on chart No. 4.

Chairman.

2021 Can you tell us anything about the cost of the dredging at the present time?—The estimated cost last year was £12,550, but I think we would want to increase that to something under £30,000. That is for the dredging of the outer channel. I had nothing to do with the railway scheme.

2022 Had you anything to do with the inner harbour?—No.

Mr. Field.

2022a Do you consider 160 yards would be sufficient?—That would be the bottom width. Of course, the sides would slope off.

Mr. D. M. HANLEY, T.C., Mayor of Sligo, representing Sligo Corporation, called on, and Examined.

Chairman.

2023 We shall be glad to get some information from you?—I have very little to say, because I see by your terms of reference that you are not going to interfere into the housing problem.

2024 We are dealing only with transport facilities?—The most important thing for Sligo and the district is inland transport. I happen to be a member of the Harbour Board as Mayor of Sligo, and the Corporation are almost as interested in the harbour as the Harbour Commissioners themselves. With the evidence given by the three witnesses who have been examined I am entirely in accord, and so is the whole Corporation. If you do anything for the harbour and say good access from this inquiry, you may be sure the Corporation will be quite pleased. What really needs development is the manufacture of cement and the development of iron, of which there is an abundance at Cresslea. Coal, iron and cement are very scarce in Sligo, the quantities available being entirely insufficient to meet the requirements of agriculture, food production and ordinary domestic purposes. There is an unlimited supply of coal in Goweragh and Arigna, as well as materials for making cement. Cresslea has unlimited supplies of best quality iron ore. Railways should be constructed, as an urgent war measure, under the Defence of the Realm Act, connecting these mineral districts with Sligo. Iron and cement works should be erected and Sligo is a splendid distribution centre. As a result of a long, continuous, and well-estimated bombardment with long range free trade artillery, many large stores, mills and buildings were put out of action and are now vacant in Sligo. These with small alterations would make suitable buildings for factories. Unless the English Government carry these works through before the end of the war, it will fall to the lot of an Irish Government acting for and on behalf of the Irish nation to do them when the war is over.

2025a You think it there was better transport into Sligo from the neighbouring country that you would have cement and other things of that sort developed and brought here?—Yes. I am in the cement trade

Chairman—continued.

myself, and since April I have not been able to get any cement. The farmers come in in droves looking for cement. It is almost impossible to get as much cement as would fill a railbol. The same thing applies to iron at the present time. We cannot get it without permits. There is a good deal of iron ore in the Cresslea district. It was worked by a London firm at one time.

2029 Did they try these same schemes in connection with peat?—The coal is quite convenient to them. If they had a railway made they would have the coal beside them. They started to work the iron when the price of bar iron was very cheap. They were 22 miles from Sligo port, and they had to cart the ore to Sligo. Owing to the want of railway facilities they could not get much machinery into the works. If these works were reopened by the Government, it would be very important and would be a great thing for the Empire, even apart from being a very great matter for Ireland.

2030 How near are they to the railroad now?—About 2 or 10 miles from Dromahair. The routes being up the mountains, the roads to them are not very good.

Mr. Hanley.

2031 If the port of Sligo were developed along the lines suggested here to-day, do you think that private enterprise in Sligo would manifest itself in developing the industries you now suggest?—Not without protection. People would need protection for capital.

2032 Given a decent economic policy for the United Kingdom?—Well, I think they would, provided the railways were put down by the Government.

Mr. Field.

2033 Are you of opinion that if the port was improved on the lines suggested by the witnesses here to-day, that you would have cargoes for the vessels that would come here?—My own considered opinion is, I don't think anything of the kind. I think the future of this country will be to become more robust and self-supporting and we will not need so much stuff

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Mr. HANLEY.

[Continued]

Mr. Fidd—continued.

from abroad. When the industries of the country are revived we won't need to import a lot of things.

Chairman.

2634. What about exporting?—We may export, but for a long time to come it will be mostly to Great

Britain, and the heavy things will be principally food of one kind or another, but the policy of the country will be to become more self-supporting and produce more of its own foodstuffs, coal, iron and other requirements.

Chairman—continued.

Chairman—continued.

2635. We would like to hear from you whether you consider the trade of the place is hampered by lack of proper facilities for transport?—The first thing I would like to deal with here is that there is every possibility of exporting stuff out of Sligo as well as importing it. We have unlimited supplies of iron ore at Croveola, and I don't see why that would not be developed and exported from Sligo to England and Scotland. We are supposed to be Britishers, and would it not be better for the Government to support their own people rather than the people of Spain? Up about Ballisodare we have unlimited supplies of cement, and I don't see why we should not export that also. Iron ore is to be found in abundance in Co. Sligo. If it was possible that a shipping yard was started here or smelting works, there would be no necessity of getting plates from across the Channel. I hold that if that place was developed we could export commodities. There is an amount of timber sent from here on the Scotch boat, and I remember when we exported an amount of oats. I want to say that it is possible to export, if our port were fully developed. As regards the Arigna coal, I think it very desirable to have a line running to Collooney. It would facilitate Sligo. I don't want to go into these matters any further, as they have already been fully explained to you. But I have a scheme here on behalf of the Sligo Trades and Labour Council. I think it right you should see the scheme. I did not know there was a scheme from the Harbour Board. I happen to be a member of the Harbour Board, but I was not present at the last meeting when the matter was brought up. These are the suggestions of the Sligo Trades and Labour Council.—The place known as Pool Cam, at Sligo Harbour, might easily be blasted with a view to allow ships to come to the upper quay with much greater freedom than at present. This place is a quarry marked by two perches, and is most dangerous; in consequence there is a great waste of space which could be utilised if this obstruction was removed. The place opposite, known as the Salmon Hole, could be easily filled in from the Scotch boat shed. A wall could be built to the large jetty at the deep water; by this means a most suitable depot could be made, and, with the erection of steam cranes, the discharge of steamers could be accelerated and valuable time saved; the railway line runs directly along this proposed site, and with the construction of this wall the cargoes could be transferred to railway waggons for immediate distribution through the whole country. From the deep water berths the wall at present marking the channel boundary should be removed back at least for a mile on Carrigan Strand; this would result in a straight channel to what is known as Oyster Island; large steamers of 5,000 or 6,000 tons could come to Sligo Quay with perfect safety. With the removal of the wall a few powerful sand suckers could be employed to pump the sand on to Carrigan Strand, the river then would be roughly a mile and a half wide, with plenty of deep water and safe at all tides. With this accomplished the project of continuing the railway to Oyster Island could be carried out. At Oyster Island it is possible to make a wharf for large transatlantic ships 10,000 to 15,000 tons with the aid of a dredger to dredge the berth to, say, 30 feet at low water; the river bed at this place is of a gravelly nature; a new wall or jetty could be erected, where ships could lie in perfect safety in all weathers. The course of the channel from the Metal Man cut to the bay is very hard to navigate owing to its zig-zag position; to obviate this difficulty we suggest that the

perch opposite the Metal Man on Bowness shore should be removed inland at least 100 yards and dredge the channel straight by Manghley Head, the wall running from Doran's Island to the Rock Lighthouse should be raised, and sand-suckers employed to remove the sand from the new channel and force it over the gill at the lighthouse, the raised wall would prevent the sand from filling in the channel and protect Poolbeg from westerly and south-westerly gales and afford safe anchorage in all weathers. In order to keep the channel clear and safe it is absolutely necessary to completely close the place known as Shrumacalla Hole for the following reasons, viz.: the tide runs with greater force at this place than through the Bowness Point, with the result that it wears the channel away at this position as at present apparent in the course followed by the channel running close to Lissadell, the closing of this place would result in the full force of the tide keeping the channel perfectly straight and clear out to sea. What is called the North Wall opposite the deep water should be removed back to, say, a distance of 50 yards at Carrigan shore, 50 yards at the Red Light and in the centre 150 yards; this would make the river perfectly safe for night traffic. The spot called the Blennick to be cut away towards the Coast Guard Station for, say, 150 yards.

With the above suggestions made practical, Sligo River would rank as one of the safest and best in the United Kingdom.

Chairman.

2636. That is very interesting, but does not come within our Terms of Reference. Our duty is to see if the existing facilities are sufficient, and, if not, what steps could be taken to make them sufficient—I remember when I was a boy on the quays there was a large quantity of oats exported. That trade has been killed.

2637. Supposing this port was improved, how are you off for labour to handle the ships?—We have plenty of labour for the men knocking about now. Some of the old men are bring on about from 15 to 20 hours' work a week. That is all the work they can get.

Mr. Hudson.

2638. You are representing the Trades and Labour Council here?—Yes. We give our support to the scheme that has been submitted by the Harbour Board this afternoon.

2639. On the ground that it would afford work industrially for the population around this district?—Yes.

2640. You also give evidence yourself to the effect that not only would it develop the import and export trade necessary to the port, but that there are other industries also in your opinion that might be largely developed provided this scheme were carried through?—That is so, sir.

Mr. Fidd.

2641. Are you of opinion, if the scheme put forward by the various witnesses is carried out, that it would bring more labour to the port?—Yes.

2642. And at present, owing to the want of facilities, your labour is not what it ought to be or has been?—That is so.

2643. And you are also of opinion that you require a railway to connect with Angus?—I am.

2644. And that would help the labour population?—Yes.

(Answered.) We are very much obliged to you.

Mr. R. J. KIRWAN, B.E., M.Inst.C.E., County

Chairman.

2645. You have heard the evidence given this afternoon?—Yes, sir.

Surgeon, Sligo, called in; and Examined.

Chairman—continued.

2646. Do you agree with it?—Yes, entirely.

2647. And you are going to tell us now of the necessity

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MR. KIRWAN.

[Continued.]

Chairman—continued.

city of transport facilities from here to Arigna?—Yes, of course. I am more interested in the work outside the town. The most important transport need of this district is the getting of coal from the Arigna District to Sligo. The nearest colliery is 12 miles distant, on a mountain side at an elevation of 1,600 ft. For the most part the road to the coalfields is suited only for light traffic, and the portion up the mountain side, about five miles in length, would require complete reconstruction to make it suitable for mechanized haulage. As an emergency measure, pending the construction of a railway and ropeway, I suggest that the maintenance provision for the main road to the mountain foot should be increased to enable 50 tons per day to be carried by steam lorries. The coal to be taken by cart from the pit to the leading place for the lorries, and later by a ropeway. The extra maintenance cost of the road to be provided by the Road Board, or out of other State funds, and provision should be made at the same time for the permanent improvement of the road. As regards the future of inland transport in this country, it is certain that, after the war, there will be an enormous increase in commercial motor traffic. In rural districts the roads will be the feeders to the railways, and the main roads should be improved accordingly. Much useful work was done in the direction indicated by the Road Board, but their operations ceased in the early days of the war. In this country 422,000 was spent in improving 50 miles of main roads serving districts not provided with railways. To this expenditure the county contributed £13,800 raised by short-term loans. There are deep-sea fishing stations on the coast of Sligo, Mullaghmore, Roughly, Enniscrone and Inishmurray Island. There is a good harbour at Mullaghmore. It is about 10 miles from the nearest railway at Benbulbin. A ship for repairs is required. Roughly, 15 miles from Sligo, has a shallow harbour which requires some improvement by deepening Enniscrone, which should be one of the best deep-sea fishing stations, has no harbour properly speaking. There is a good pier, but it is too exposed, and boats must be kept heeled up on the land, and can put to sea only in calm weather. An enclosed harbour is badly needed there. Enniscrone is also miles from Ballina Railway Station. At Inishmurray a pier and ship are badly needed. The fish are landed at Struagh, 11 miles from Sligo where a pier is also required. Of the above four stations Mullaghmore is the only one of which large boats are used, the harbour accommodation being insufficient at other places.

STATEMENT BY MR. T. SCANTLAN, M.P. FOR NORTH SLAGO.

MR. SCANTLAN. I can tell you something concerning the matter of industrial development. I have been interested in the development of the cement industry, largely on account of the request made by the people of Sligo (including the Mayor of Sligo and the Sligo Wrought Iron Company) for permits. Mr. Arthur Jackson, who has been examined here, has been very anxious to start a cement factory on a large scale near Sligo. I can not bring away any secret when I say that I have been engaged on this scheme for a considerable number of months past. I may say, for the information of the Committee and for the information of many people who are most deeply interested, that another Committee from the War Office which has absolute control over cement will shortly come to Sligo with the desire of finding out if it is possible to start a large cement factory at Ballysodare, where all the materials necessary for the manufacture of cement should. Regarding Arigna, I have served an apprenticeship to this scheme, but whether it was the question of the development of the port, in which I have interested myself also, or the establishment of a cement factory, the first question always asked by the Government Departments in London is, "Can you provide local coal?" Now, so far as Sligo is concerned, we have no difficulty in answering that question. Local coal can be provided by a system of railway development. With some members of this Committee, I have been repeatedly on deputations to successive Chief Secretaries with a view of impressing on them the importance of the development of Arigna. Arigna has

Chairman—continued.

2543. Has any estimate been made of the amount of money that would be necessary to make the road capable of carrying the motor traffic as far as the Arigna district?—No estimate has been made, but I think it would take about £20,000 to improve them permanently. Perhaps as a temporary measure £2,000 or £3,000 might serve. That is, as an emergency measure, to cope with the present shortage.

2549. You have not many roads capable of taking very heavy traffic?—None, except, I think, 50 miles, roughly, that has been reconstructed.

2550. That is fit for it?—Yes.

2551. Have you any fishing business here?—No, not in the Port of Sligo. There is practically no deep-sea fishing.

2552. None of the fishing boats come in with fish?—No.

2553. If you had a regular service of steamers do you suppose you would get fish here?—Yes, quite easily.

MR. FAIR.

2554. With regard to your suggestion concerning the roads to Arigna?—Steam lorries I suggested.

2555. How long would it take to make the railway?—Two years perhaps. It is about 10 miles.

2556. Two years to build ten miles of railway. They would do it in America, in the prairie, in half a day?—But that is not a promise.

2557. I know it isn't. If this development took place it would be a great benefit to Sligo?—Yes.

2558. And to the seven counties with which Sligo is trading?—Yes.

MR. KRATING.

2559. What is the distance between this and the Arigna district?—Eighteen miles.

2560. Is the output sufficient to warrant your suggestion that 50 tons a day could be obtained immediately from there if the main road were improved and steam lorries provided?—Yes. That is a small output.

2561. That would be immediately available for the town of Sligo?—Yes, if the roads were improved and the lorries available.

2562. I think that is a very important matter. It would be quite possible for us to recommend to the Privy Council that the steam lorries should be obtained for the purpose at view, having regard to the urgent need. Have you got any estimate as to what the main road would cost?—£10,000.

now been developed to some extent by the provision of three miles of light railway, but some further development is necessary in order to get an output of coal from the Sligo side of Arigna. Therefore it is necessary to have further railway connection either with the Midland Company at Carrick or some other convenient centre, so as to have a supply available for Sligo and for bunkering the ships going out of Sligo, and thus assist the schemes which have been submitted to you to-day. I am making these remarks as I think these things should be known to your Committee, and it is also well that the people of Sligo should know of them. I think that I am only expressing the wishes of the people of Sligo in tendering to the Committee our best thanks for the patience with which you have listened to the evidence given by the different gentlemen here to-day. There is one gentleman, Mr. Labe, who has been connected with the Sligo Harbour for many years, who was unable to be present. His expert opinion would be most valuable to the Committee, and I would ask the Committee to allow him to send them a considered statement of his views on the development of the Sligo Port, which might be incorporated with the rest of the evidence taken to-day. I thank you sincerely on my own behalf and on behalf of the witnesses and people of Sligo for the patient hearing you have given us.

Chairman. On behalf of the Committee, I wish to tender to the witnesses our sincere thanks for all the information they have placed before us in reference to Sligo and the necessity for more transport facilities.

W.

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Mr. SCANLAN.

[Continued.]

Statement by Mr. T. SCANLAN—continued.

We shall be very glad to see Mr. Loder's statement and weigh it up very carefully. We hope to make a Report to our Main Committee at a very early date, but of course we cannot promise that something will come

of it, but we shall see that the votes put forward to-day are placed before our Select Committee as clearly as possible.

(The sitting then concluded.)

FIFTEENTH PUBLIC SITTING: SATURDAY, 21st SEPTEMBER, 1918.

At the COURT HOUSE, LETERKENNY, at 3.30 p.m.

MEMBERS PRESENT.

Colonel John Grotten, M.P.
Mr. William Field, M.P.
Mr. Matthew Keating, M.P.

Mr. Walter Hudson, M.P.

Mr. P. J. HANSEN.

Mr. PHILIP MACNULTY, Secretary.

SIR ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

CHAIRMAN.] May I say, first of all, why the Sub-Committee is here. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland, to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. Our Secretary inserted in the various papers throughout the country a notice giving the terms of our reference, and stating that "Local Government Bodies, Public Companies and Voluntary Organizations which desire to submit evidence based upon the Terms of Reference, should communicate with the Chairman of the Sub-Committee, Sir Arthur Shirley Benn, M.P., at the Shelbourne Hotel, Dublin, as soon as possible after the 2nd instant." That notice appeared in two of the London-derry papers in the week ending the 21st August, but we got no intimation that anybody from this district wished to give evidence. We therefore made up arrangements for taking evidence. We shall be glad, however, to receive any evidence that may be submitted to us within our Terms of Reference.

Mr. EDWARD McFADDEN, Solicitor, Letterkenny.] I was away on holidays in England when the notice

appeared in the papers, so I did not see it. The first intimation I got that the Sub-Committee would be in Letterkenny was this morning from Mr. Kelly about 11 o'clock. I also got notice from the Secretary of the County Council this morning stating that the Chairman of the County Council would be very glad to give evidence, but that he could not attend to-day.

Mr. HANSEN.] Could not any witnesses who are not here, and who are anxious to give evidence, appear at Derry on Monday morning?

Mr. McFADDEN.] Mr. SUMNER, Solicitor to the County Council, said he thought you were holding a sitting in Strabane.

CHAIRMAN.] There is no sitting fixed for Strabane. We have to be in London on the 1st October, and we have had, therefore, to get through in a shorter time than we should have liked to. If statements are sent to us we shall consider them. Perhaps some gentleman will explain to us the position in reference to transport facilities in Letterkenny. Fuller details and statistics could be forwarded to us.

Mr. McFADDEN.] If the statements are sent on, would that be sufficient?

CHAIRMAN.] Yes, but we would like to get a general statement as to the state of affairs here.

Mr. McFADDEN.] I am only conversant with my own part of the district. Mr. DALRY, Chairman of the County Council, has knowledge of a wider area. I know the general outline of the waterways.

CHAIRMAN.] Then perhaps you would give us some evidence.

Mr. EDWARD McFADDEN, Solicitor, Letterkenny, Ex-Chairman of Donegal County Council and Post-M.P. for East Donegal, called in; and Examined.

CHAIRMAN.

2565 You used to represent East Donegal in Parliament?—Yes.

2566 For a time you were also Chairman of the County Council?—I was.

2567 Can you tell us something about the facilities for transport in this locality?—In my young days, my father was a merchant who lived six miles out from here. I can go back to the year 1878. I remember when Letterkenny had a splendid oaks market. My father was engaged in that trade. Mr. Kelly is a kind of successor of his now. There were several other buyers in the town. We had a pier at the "Thorn," two miles from Letterkenny. We had a bi-weekly steamer and she had a very enticing name—"St. Clare of the Isles"—and she plied between Letterkenny and Glasgow. She could not take away all the traffic, and some of it had to be diverted to Derry.

2568 What drought of water had you here then?—I cannot tell you; Mr. Kelly can.

2569 Do you know what has become of the oaks—are they not grown?—The farmers are growing them still, but they are bought at different markets. The Letter-

CHAIRMAN—continued.

kenny Railway was made then. Mr. Kelly is our solitary buyer here now. The oaks are in the country, and are grown most extensively.

2570 You think it is because they could not get transportation from here that they don't come here?—I think so. Mr. Kelly is an expert in regard to this matter, and he will give you information. In those days to which I have referred, during my father's time, Letterkenny was a very busy town on market days. I remember myself being at school here, and seeing the whole street lined with carts. On market days now you could easily count the carts. The trade has been diverted from Letterkenny.

2571 Is it owing to the fact of not having the trade here that the population has decreased?—I think so. Down the coast, where the fishing industry has prospered, the population has increased. Of course, we have got two railways now. I was speaking of '78. Then the Letterkenny Railway was built. When I was in Parliament I got a small Bill promoted to establish a railway to Strabane, which was a great boon.

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Mr. McFadden.

[Continued.]

(Chairman—continued)

been to the public. That is a matter of quick passenger traffic you know.

2670 You send things over the railroad to Strabane?—Yes, and on to Belfast and England. A lot of the fish traffic goes that way. Formerly, before the Strabane Railway was built, we sent them round to Derry.

Mr. Field.

2671 Has anything been done during all these 42 years with regard to the pier, or getting the channel dredged?—No.

2672 Is there any kind of maritime board here?—No.

2673 There is no port, or harbour, or maritime board here?—No.

Mr. CHARLES KELLY, Millowner and Grain Merchant, Letterkenny, called in; and Examined.

(Chairman.)

2674 You will give us some information about the present condition of the port?—It is privately owned, and it is fairly navigable to the "Thorn," but boats have a lot of difficulty after that.

2675 What is the draught of water?—About 11 feet at spring tide at the port.

2676 And at neaps?—Down to nothing, according to the wind or weather.

2677 A boat has aground here?—Yes. At the "Thorn," there is about the same water, at neap tide, as at the port during spring tide, viz., about 11 feet.

2678 Do you believe that the reason why the business is not greater here is because you have not better facilities?—We have had no ships in here since the war began. Previous to that we had boats up to 300 tons, and provided they did not exceed 125 feet in length they could come up. We sold coal here, in opposition to Derry.

2679 Vessels came in with coals?—Yes, and loaded up grain or meal or anything else that was going. Since the war broke out meal from Letterkenny to Limerick has to go by rail, and it costs 24s or 25s a ton. My firm buys about 100 tons of oats weekly in the winter months.

2680 Has any effort been made to dredge the port?—No.

2681 What is the distance from here to the sea?—From here to the "Thorn" is two miles, and the river is fairly navigable after that, and to the sea I suppose would be 20 miles. Very large boats can come into Rathmullen. I think there would be about 40 or 50 feet of water at Rathmullen.

Mr. Hanson.

2682 Is it a naval base?—Yes.

2683 How near does that come to Letterkenny?—It is about five miles from here.

2684 Then you have got the river on?—Yes, from Letterkenny. What has been occurring to me is that it would be a great matter to traders if the Rathmullen Pier is extended for Admiralty purposes, and if we had any connection with Rathmullen, either by rail or water. There is a project for extending the pier by the Admiralty, I think for the landing of oil.

2685 What sort of roads have you got here?—Fair.

2686 Would they be good enough for a motor service?—At present we are considering the question of motors, and I think 5 tons would be the maximum haulage for a vehicle.

2687 If the port here was improved, you consider that the trade would develop?—I think it would increase greatly.

2688 Does that mean that you would take the traffic from some other place?—It would be developed here. I may state that my firm have been sending a good deal of meal to Limerick. We don't go further south. Limerick is the biggest centre we have in the South.

(Chairman.)

2691 Are your mills working fully?—Yes.

2692 You have a good money in the country that you sell?—Yes; but this is a great grain-growing district, and mills are very much required.

Colonel Griffin.

2693 Did these vessels come up to Letterkenny until the war began?—Yes. The Government restric-

Mr. Hanson.

2694 I suppose the County Council has some authority?—They have practically no authority.

Mr. Field.

2695 The whole thing is left to God and Nature?—Yes. Twenty years ago I took Mr. Arthur O'Connor, then M.P. for East Donegal, down the river to show him the defects in the navigation. It is a miracle how a 300-ton steamer can get up at all. There is only one man who can pilot boats on the river, he steers by the "barwoods" on the bank. At a certain point the boat has to be dragged by men with ropes.

(Chairman.) We are very much obliged to you.

Colonel Griffin—continued.

boats at the mouth of the Lough are the great drawback at present.

2696 What I want to find out is if the river is still possible for vessels?—Yes, under great difficulties. We are dependent on one pilot, and when he gets drunk the vessels lie up.

2697 That is not the fault of the navigation of the river?—It is extremely difficult to navigate, and only one man understands it. What Mr. McFadden said about the boats being obscured by the "bar-woods" and trees is quite true.

2698 Are improvements were to be made what do you want done?—The turns in the river are very sharp. We cannot get vessels up exceeding 125 ft. in length.

2699 It is not that you want the river deepened?—No, we have a tolerable depth. We want a few points straightened.

2700 Has the trade of Letterkenny generally decreased since the navigation became difficult?—The navigation is what it always was. The river has not silted up. If anything, I think it is improved.

2701 What I want to know is whether the business generally has decreased?—I think the wholesale trade has increased, but I think the ordinary retail trade, owing to the railway developments, may possibly have decreased.

Mr. Hudson.

2702 You think the railway has been against you?—Against the small traders. It has taken the traffic elsewhere, but that is natural. We would have a great development of farming if we had a better port. In previous days I have shipped oats to the Bristol Channel, but under great difficulty. We have to wait sometimes for two or three days.

2703 You think the district would do more business and produce more oats and other commodities if you had better transport facilities?—Yes.

2704 Is there any other commodity dealt largely in besides oats?—There has been a big shipment of potatoes and there is an immense shipment of cattle, which go by Londonderry. There is also a big market for eggs and butter.

2705 If the channel were straightened, would it increase the tonnage?—Yes, it would give us the greater choice of boats.

2706 What tonnage do you think it would increase to?—We would get a boat of 500 or 600 tons if the turns were straightened. The river is very tortuous.

2707 You think there would be no danger of it filling in again?—No.

Mr. Russell.

2708 What do you mean when you say the port is privately owned?—Mrs. Ramsey owns one pier and another lady owns another, and both piers are leased to the merchants.

2709 Have you made any representations to the Congested Districts Board or to the Department?—Yes, several. We subscribed in Letterkenny a considerable amount of money, but we have no authority over the port or river.

2710 Is it your position that the Government, or the State, or Parliament, should come in and advance money for the purpose of facilitating the navigation?—Yes, and that we would not be tied down to the one type of boat.

2710 Would

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MR. KELLY.

[Continued.]

Mr. HANCOCK—continued.

2709. Would a loan repayable over a period of years meet your case?—We have no authority to take does it mean giving £22 a year for one pier, and Mr. McKinney is giving something for another.

2710. Would you be able to compete with the railway to Derry and with Derry shipping?—We have been competing in 340-way years.

2711. With cross-Channel ports?—Yes.

Mr. FIELD.

2712. Would the merchants of Letterkenny who are interested in this matter find the money to promote a Bill in Parliament for the purpose of creating an ownership?—I have no doubt they would.

2713. Would you take that job in hand, because it appears to me that that is the only way that it can be done?—When I last approached the people of Letterkenny they subscribed generously, and we are prepared to do as much as we are able.

2714. It is evident to me that, if you have a private ownership of a public utility, you cannot take away that ownership without giving compensation to the present owners?—Well, at Ballyshannon there were privately owned quays. The private owners, in view of the advantage to Ballyshannon, gave up their private interests, and a port authority was established.

2715. Could you not do the same in Letterkenny?—I think so.

2716. Do the railways serve you at the present time?

—No, not Letterkenny, but Derry. They penalise my firm generally to the extent of about £s. a ton. They will give a cheaper rate from Derry to Limerick than from Letterkenny to Limerick.

2717. About how much nearer is Letterkenny to Limerick?—About an equal distance. There may be a mile or two in the difference.

2718. Your view is that the railways generally penalise your firm?—Yes.

2719. And if you had water facilities their rates would come down?—Yes, and the Limerick miller would be glad to have a full cargo at the present time instead of only a 20 ton lot.

2720. Would not that go to show the necessity of taking the steps I have suggested?—Yes.

2721. With regard to the development of the district,

MR. WILLIAM GEORGE MCKINNEY, J.P., Merchant, Letterkenny, called in, and Examined.

Chairman.

2724. You are a large merchant, I understand?—Yes.

2725. And you can give me some information about the navigation?—Probably I am the only one living in Letterkenny who remembers the time when we had a cross-Channel trade traffic to the "Thorn." We had a very large traffic between here and Glasgow. We also gave a boat a return cargo.

2726. What was that?—About 500 tons, drawing anything up to 11 feet. We could get that depth at any time. Even now we can get it to Ballyshannon, Letterkenny.

2727. Have you less water now than you had before?

—No. We can get boats of 500 tons up at spring tide.

2728. The channel remains virtually the same?—Yes, with the exception of some little variations. I used to ship about 3,000 tons of coal annually to this port. At present I have to ship it to Derry and rail it from Derry here, and this means from about 2s. to 2s. 6d. per ton extra.

2729. What do you do with the export stuff that you used to send?—It has to go over the rail to Derry. We cannot export anything from this place. I remember the time when we had a very large corn market here. In fact the farmers would not be all paid until candlelight.

2730. Can you tell me about the River Swilly navigation—who is the authority?—There is no authority over the River Swilly navigation. If we had it improved, as it should be, we could have a very good traffic to Letterkenny. We had the channel buoyed with floating buoys put on the river, but they were removed. Good iron standards are what we ought to put down.

Colonel GIFFORD.

2741. You have no Chamber of Commerce here?—No.

2742. Or river authority of any sort?—No. I am lessee of this port, if you call it a port.

you take it for granted that if the transit facilities were increased there would be a further development here?—Yes, from the agricultural point of view.

2722. You said something about Rathmullan pier being extended?—Yes.

2723. Have your people made any inquiry from the naval authorities whether there is anything going to be done at Rathmullan or not?—I made no inquiry. What I have stated I read in the papers.

Mr. McFadden? The County Council will give evidence of that.

Mr. FIELD? We have not them here.

Mr. McFadden? You will have a statement from the Chairman.

Mr. FIELD.

2724. Do you deal with merchants as far as Limerick, Mr. Kelly?—Yes, sir. The Limerick merchants evidently prefer to get my meal than the Limerick meal.

2725. And you would be able to supply them more satisfactorily if you had better transport facilities?—Yes.

2726. There was something said here about cattle going to Derry?—Yes.

2727. If you had that pier at Rathmullan would you be able to ship cattle?—I understand that they carried cattle from the "Thorn," but that was before my day. The cattle shipment from Letterkenny is very large.

2728. Would that not be another urgent reason why something ought to be done in the way of developing the port?—Yes.

2729. You produce a great deal of agricultural produce in this district?—Yes.

2730. And you would be able to give these boats big cargoes?—Yes.

2731. With regard to the pilot you want him to become a testotaller?—Yes.

2732. Is it a fact that the lights that you placed on this river or channel have been carried away by some person or persons interested in the preservation of this extraordinary condition of things?—That is quite true.

Mr. HANCOCK.

2733. Are the goods that go by Strabane transhipped?—Yes.

Colonel GIFFORD—continued.

2743. You are the authority, then?—It is private property. I am the lessee.

2744. You have plenty of railway connection?—We have not now. We are restricted very much. Sometimes I get a boat into Derry, but there are not sufficient wagons to discharge her.

2745. That is due to the war?—Yes.

2746. Prior to the war?—No boats bound for Letterkenny came into Derry before the war. We brought them all here; all my coal boats we brought here. I discharged a 350-ton boat at this port—vessels carrying from 200 to 250 tons traded here regularly.

2747. And the reason why you are not getting them now is because of the war?—I should think that is the principal reason.

2748. And after the war you will have them, but you feel that if the river were dredged that you would be able to get in bigger ships?—We have only one man who acts as pilot.

2749. What will you do when he dies?—If we had the river buoyed and lighted any man could bring up a vessel. But at present we have only one man who can pilot a vessel.

2750. Have you made representations to anyone about that?—Mr. Kelly has.

Chairman? To whom did you make representations, Mr. Kelly?

Mr. KELLY? To the Board of Agriculture, and to any other authority I know.

Witness? When the vessels stopped coming here that pilot got employment elsewhere?—He is really the only pilot we ever had that could bring up a boat successfully. Others tried it, but the boats went ashore and the owners got tired of bringing them up the river. If we had the river properly buoyed and the corners taken off we could have a good traffic to this port.

2751 I

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Mr. McKINNEY.

[Continued.]

Mr. Field.

2751 I am afraid the corners won't be knocked off for some years!—Private enterprise could not enter into a job of that kind.

2752 Do you believe there is as much corn produced here as formerly?—There is more this year than I ever saw for fifty years.

2753 Of course you would have a greater export of that kind?—Yes.

2754 About the River Swilly, you agree that the corners ought to be knocked off?—Yes, and the principal thing would be to put down bays.

2755 Have you any branch of the Industrial Association or any kind of co-operative association, or anything that brings the merchants together?—We have a Co-operative Flax Association.

2756 But nothing for the general wants of the town?—No.

2757 You are the leasee of the port?—Yes.

2758 Who have you the lease from?—Mrs. Ramsay was the owner. She owns the quay and the ground all round it.

2759 And she has leased it to you?—She made it over to her son-in-law, to whom I now pay the rent.

2760 Do you think if the merchants got together they could take steps to acquire that?—I think they could. There is no reason why they could not.

Mr. Field—continued.

2761 It does not appear to be a very valuable property!—Not at present.

2762 But it would be if properly worked?—Certainly.

2763 You said there ought to be bays on the river?—Yes.

2764 Had you ever got any estimate as to what these bays would cost?—We had bays put down that cost us about £200, which was subscribed by the people of Letterkenney, and these were destroyed.

2765 You are not going to get the Congested Districts Board, or this Committee, or anyone else to help you unless you have some initiative yourselves?—Yes.

2766 You ought to have a local committee and go ahead with the agitation and do something.

Mr. McFadden.] You will take a statement from the County Council, if it is sent in.

Chairman.] Yes, with pleasure.

Mr. McFadden.] No sitting will be necessary?

Chairman.] No. We are very much obliged to the witnesses for the information they have given us.

(The sitting then concluded.)

SIXTEENTH PUBLIC SITTING—SATURDAY, 21ST SEPTEMBER, 1918.

At DOWNING BAY, SHEEP HAVEN, CO. DONEGAL, at 6.30 p.m.

MEMBERS PRESENT.

Colonel John Greville, M.P.
Mr. William Field, M.P.
Mr. Matthew Keating, M.P.

Mr. Walter Hudson, M.P.
Mr. P. J. Hapton

Mr. PHILIP MACNULTY, Secretary.

Sir ARTHUR SHIRLEY BENN, M.P., in the Chair.

The Sub-Committee examined a number of fishermen at the pier in reference to the transport facilities of the district. The witnesses complained of the want of transport facilities to Crombough Railway Station. They stated they had to go ten miles by road and get carts, and the result was that transport was very expensive, and they very often lost their market. They wanted the County Council to improve the roads so that an arrangement might be made for a motor service. If the roads were made fit to carry the motor service, private companies or persons would take the matter up. Some proposition to that effect was made, but owing to the condition of the roads no one would undertake to provide the motor service at present. Thirty years ago the fishermen were supplied with small carriages and nets. They then got into skiffs and yauls. Twenty-five years ago the Congested Districts Board came along and gave them two boats, and, under a man named Duffy, since dead, a fleet of boats was got over of a larger type, and they gave the men a bonus to use these boats. A fleet was established on a peculiar system of boat shares. Six men and an instructor constituted the crew, and it was divided in this way—of nine shares to a boat five went to the crew and four to the Congested Districts Board, and the result was that when the amount was paid on the four shares the boats were handed over to the crew and became their absolute property, and the instructor was dispensed with. The men need no instruction now, and are well able to carry out their own business.

Within the past five years a motor-boat was introduced, and about 20 or 30 boats are now working on

the bay. It was represented to the Sub-Committee that the County Council obtained dues of 3d. per "cown"—landing dues—on all the fish landed, and also a payment of 7s. 6d. per sail and 10s. per power boat twice a year. This amount is paid to the County Council and realised about £200 a year. Therefore the witnesses submitted that it would be only reasonable that the County Council would improve the roads, because it would enable the fishing to be enlarged. The fishermen do not get much mackerel, although there is plenty in the bay, in consequence of their not having any facilities for the rapid transport of the fish. They complained that the harbour very badly wanted to be dredged. The temporary remedy they proposed was that the road should be sufficiently improved to carry motor traffic, but the real permanent remedy they suggested was to extend the Strabane and Letterkenney Railway through Bellefleur, Millford and Carrigart, and thus serve places where agricultural produce has practically no market except by carting. That railway should be broad gauge so as to prevent transhipping to a larger gauge. The proposed extension railway would enable fish to be sent fresh either to Dublin or Belfast. This branch would also serve various other towns and villages, and the whole Farns Peninsula, at present cut off.

The fishermen also asked that a breakwater, which would not cost much, should be erected at the inner side of the pier so as to prevent the silting of sand and stop the backwash which does so much injury. The harbour, they stated, had been dredged only once during thirteen years. If the improvements suggested

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[Continued.]

geed was carried out an enormous amount of fish could be caught. The prices now of fresh fish have been largely increased, so that no curing was done although labour is available and plenty of the population know how to cure. Improved transport facilities is a matter which, in consequence of the increased demand for food production, ought to be immediately attended to. The nearest line of railway to the fishermen is at present 10 miles off—the nearest station being at Crossdough, on the Londonderry and Lough Swilly Railway. The transport to Crossdough is entirely dependent on local conveyances, belonging to very small farmers. The horses

and carts are small, and six barrels of fish is the most they can take at a load, and, at the best, they can do only one journey in the day. Fresh fish has frequently been detained so long as to considerably deteriorate in value, and, in hot weather, has sometimes been altogether lost. Considerable delay is at present further experienced at Londonderry on account of the fish having to be carted across the city from narrow gauge to broad gauge railways. There is plenty of machinery in Downings Bay which cannot be fished for owing to difficulty of conveyance to rail and so they will not stand delay in transit.

SEVENTEENTH PUBLIC SITTING: MONDAY, 23RD SEPTEMBER, 1918,

At the GUILD HALL, LONDONDERRY, at 10 a.m.

MEMBERS PRESENT:

Colonel John Gretton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. Walter Hodson, M.P.
Mr. P. J. Harman.

Mr. PHILIP MACNULTY, Secretary

Sir ARTHUR SHIRLEY BENN, M.P., IS THE CHAIR.

Chairman. May I say, first of all, why the Sub-Committee have come to Londonderry. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and improvements shall be adequate and suitable to meet the national requirements, and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland, to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have visited a number of ports, and we have now come to Londonderry. We are anxious to get information regarding the transport facilities and suggestions as to their improvement, in order that we may be in a

position to report to our Main Committee at the beginning of next month.

Mr. B. H. Todd, Solicitor. I understand your Reference does not allow you to deal with railways.

Chairman. We have got nothing to do with railways except in so far as they fail to offer the necessary facilities for the commerce of the port. If you have a deep-water harbour and plenty of facilities for handling cargoes coming in, and if you have not got transport from here by canal or railway, it is our duty, in our Report to our Main Committee, to comment on that fact.

Mr. Todd. That would include the case of remote districts that are not served by railways or canals?

Chairman. Yes.
Mr. Todd. I think your Reference does not allow you to deal with new railways.

Chairman. We can say that there is not sufficient railway communication for transporting the cargoes into the port—that is all we could say.

Mr. ROBERT WATSON, J.P., CHAIRMAN of the Londonderry Port and Harbour Commissioners, called in, and Examined.

Chairman.

2757 You are Chairman of the Londonderry Port and Harbour Commissioners?—Yes. We have prepared a statement. We propose to tell you first in the evidence we shall offer what facilities we have; what we have already done ourselves, and what we have considered in years past; what we might have done if we had been able, but we were prevented by several reasons. The chief reason is that we had not sufficient capital to do the thing that might be done. We have done a good deal with our surplus capital in the past. We would like you to recognise that our port is a small one with a comparatively small revenue, and we have not been able to carry out some very important improvements. We were not quite certain of what evidence you really want or what your powers were. We hope that they are something of the nature we anticipate. If so, you have come here at a very opportune time. With regard to the navigation of Lough Foyle and the river, the channel from the sea to Londonderry is well marked and lighted, and there is a minimum depth throughout at low water of ordinary spring tides of 17 feet. The rise and fall of the tide is from 6 to 8 feet, so that a vessel drawing up to 22 feet of water can be safely navigated to Londonderry. There is an average depth of 17 to 18 feet of water alongside the quays of L.W.O.S.T., and at certain

berths where large foreign vessels are discharged up to 22 feet draft, the vessels being berthed off the quay, about 20 feet. We hope for a very much larger trade after the war. We would like to have, if possible, another deep-water berth, to provide for foreign-going vessels. We have had, up to the present, and for years past, sufficient berths for the vessels coming here.

2758 You cannot bring up vessels drawing more than 22 feet?—We can, and we have done so, but we are giving you the normal state of the tide. At spring tides large vessels drawing 25 feet have been brought up safely.

2759 With the much larger steamers that are being built to-day, 22 or 25 feet of water won't accommodate very many?—We recognise that we have not enough water for them, but it is, after all, a matter of dredging and expense. We could have a sufficient depth by spending the money.

2760 Has any estimate been obtained as to what it would cost to get 25 feet of water?—We have a dredger. It is capable of getting a deeper draught than that. The depth we have at present has been sufficient for our past requirements. The channel could be deepened by dredging. It has to be dredged, on an average, once in three years. I should say that is the average for the last 25 years.

2771. Yes

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Mr. WATSON.

[Continued.]

Chairman—continued.

2771. You know the width of the bottom of the channel?—We have the engineer here, and he would be able to give evidence on that.

Mr. Jandary.

2772. What is the size of the ships that have been swung out by the shipyard here?—I think 9,000 tons is perhaps the largest.

2773. Would not that draw more than 92 or 93 feet?—Not going out light.

Mr. William Phillips, J.P., Member of Harbour Board.] We have the assistance of the managing director of the shipyard that the depth of water was quite sufficient for any vessel he would be likely to launch.

Mr. Field.

2774. I would like to know, Mr. Watson, if you have any elevators at the port for the discharge of grain?—No. We will come to that later on. The quays extend from the Great Northern Railway Terminus to the Rock Jetty opposite Messers. Gilliland's Mill. Total length, 5,780 feet. Wooden wharves for the discharge and loading of vessels have been constructed for a length of 3,590 feet, terminating at the north end of Queen's Quay, opposite the Electric Light Station. The wharves vary in width from 60 feet to 80 feet, water in places. The remainder of the quay, measuring 2,200 feet to the Rock Jetty, is free-pitched with stone, but no wharf has yet been constructed in front of same. This is the only portion available for future extensions of the wharves on the city side. The Rock Jetty, measuring 300 feet in length, is used as a fitting-out wharf in connection with shipbuilding. Shed accommodation has been provided at various portions of the quays for the cross-Channel trade, transatlantic passenger traffic and general. The quay and wharf at the waterside extends from the Carlisle Bridge to the Midland Railway Terminus and measures 1,800 feet. This wharf is principally used for the discharge of coal-laden vessels. The quays on both sides of the river are equipped with railway lines, and are connected on the city side with the termini of the Great Northern Railway and the Lough Swilly Railway, and on the waterside with the Midland, Northern Counties Committee, and the Demerol Railway. The haulage on the Harbour Tramway is performed by the Harbour Commissioners by means of loco engines, electric capstans and horses at moderate charges. To facilitate the handling of railway traffic on the waterside quays the Harbour Commissioners have ordered a further installation of electric capstans from the Hydraulic Engineering Company of Chester, and these are expected to be delivered shortly. Goods can be discharged direct from railway truck to vessel and vice versa. Additional sidings for the manipulation of railway traffic on the quays are required. The volume of traffic handled on the Harbour Tramway last year amounted to 250,000 tons. I may say that it is a very cheap haulage—roughly sixpence per ton—for the merchants and others using this tramway, and at present the rate would be about one-fifth or one-sixth of the rate for carriage. Roughly 6d a ton is what is charged. The tramway is connected with the other side of the river by means of the Carlisle Bridge.

Mr. Hudson.

2775. You spoke of additional sidings for the manipulation of railway traffic. Does that refer to both sides?—Yes.

Mr. Field.

2776. Do I understand that goods can be discharged direct from the railway trucks?—That is so. That applies particularly to coal.

2777. Have you steam cranes?—Yes.

2778. The only thing that you would require is additional sidings?—Yes. And we want more steam cranes for the quick discharge of the coal vessels. The tonnage

of vessels trading to the port for five years, from 1913 to 1917, is as follows:—

Year	Home Trade	Foreign Trade	Total
1913	257,763	38,633	296,396
1914	316,335	34,318	350,653
1915	300,759	41,379	342,138
1916	275,607	25,153	300,760
1917	243,343	36,749	280,092

The principal trade is, of course, the cross-Channel trade. In pre-war times there was a daily service to Glasgow and Greenock, two sailings per week to Heysham, and two sailings to Liverpool. Owing to the requisitioning of several steamers belonging to the lines running to Derry, these services have been cut down to four sailings per week to Glasgow, etc., two to Heysham, and one to Liverpool. The other important trades are grain, coal, and timber. In pre-war times the average import of maize into Londonderry amounted to from 50,000 to 60,000 tons annually. The imports have fallen off considerably during the war. No maize has been imported from foreign ports this year. The vessels importing cargoes of maize are berthed at the Queen's Quay, opposite Messers. McCookell and Co's grain warehouses. They are discharged by hand labour, and usually take from 10 to 14 days to discharge. Having regard to the importance of discharging these vessels as rapidly as possible, the Harbour Commissioners feel that the provision of grain discharging machinery is essential, and this is one of the problems which will have to be faced after the war.

Chairman.] What discharge do you give a grain vessel?

Mr. Thompson.] Four hundred tons per day is the average discharge.

Chairman.] How do you manage not to have the extra rate of freight put on?

Mr. Thompson.] Our 400 tons a day corresponds fairly with the discharge at other ports. Belfast is 450 or 500 tons. We are about second.

Mr. Field.] I have done up to 700 tons.

Mr. Field.] What is the average in Dublin?

Mr. Field.] Not above 500 tons. Belfast and Dublin are the same.

Mr. Field.

2779. Are your people, Mr. Watson, making provision to have these grain elevators?—I will tell you about that. I am rather anxious to make a full statement on that matter. Some years ago, perhaps 10 or 12 years ago, the Chairman of the Harbour Board at the time took a great interest in connection with these grain silos. He felt that we could improve the port by having a grain silo. At that time plans were drawn up, and he with our engineer and other members, went across the water and saw the different places where grain silos were working. In connection with the millers, here the matter was very fully discussed. We were faced at once with the difficulty I have already mentioned—the expense. That was one of the reasons why we did not proceed farther. That reason stands good to-day, except that the war intervened shortly after we were discussing it, and nothing has been done since. Lately, again, it has been mentioned, and the Committee, I am sure, will agree with me that it is a very important thing for the port that an elevator should be provided. After the war it will be necessary to have quick handling of cargoes and quick discharging of vessels. If the result of your inquiry is that money will be available for nothing or at a cheap rate that is one of the things that the port would go in for—a grain silo with elevating machinery for the quick discharge of grain vessels.

2780. Are you aware that there is a grain silo at Waterford at the present time?—Is it owned by the Waterford Harbour Commissioners?

2781. It is not. I think some of your private owners ought to be able to do what has been done in Waterford?—We are discussing the work of the Harbour Commissioners, and I may say that in the past we claim to have done a great deal with our resources. The port is a small port with comparatively small revenue, and we think we have spent the money very well indeed. We spent roughly £50,000 in developing a shipyard, and we spent out of revenue in the last twenty years perhaps another £40,000 on matters that might be charged

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Mr WATSON.

[Continued]

Mr Field—continued.

to capital account, but that we did not of revenue. If we went on like that we would be faced with the difficulty of raising money. The grain silo is not a thing that we could at present, or for a long time, pay for out of our own revenue. It would be a matter of £20,000 or £40,000 to put up a proper grain silo and elevating machinery. There is a firm in Derry—McClell and Co.—and they have put up a silo. It is on their own premises, and, of course, confined to their own work. It is not attached to the river by elevating machinery. The grain is carried or carried, but it serves their purpose very well. It would not, however, serve the purpose I refer to—the quick discharge of vessels. McClell and Co. is thoroughly up to date and capable of handling 5,000 or 6,000 tons of corn.

2702 Is it connected with the railway?—Yes, the grain can be loaded out of the stores into wagons. That is the point I make about the silo—that, if the money was available, then the Commissioners would probably consider the question of putting up elevating machinery and also a silo for the quick discharge of vessels. With regard to the coal trade, the annual import is about 200,000 tons. The coal is discharged by means of steam cranes. There are five steam cranes belonging to the Harbour Commissioners available for this work. An additional new steam crane is on order, and is expected to be delivered shortly. There are two private steam cranes belonging to Messrs. Henry Lane and Co. at the Princess and Waterade quays respectively, for the discharge of coal. As in the case of the grain-laden vessels, a rapid turn round is equally essential for the vessels importing coal, and in order to provide for this and for the increased trade expected after the war, more steam cranes are required, and also space upon which coal cargoes can be landed when there are no railway waggons available. The present quays being narrow, there is very little room for depositing coal thereon. Timber-laden vessels are discharged at the Queen's Quay, to the seaward of the coal berths. This trade is very much handicapped by reason of the fact that there is so little room on the quay for throwing out the timber rapidly from the vessels and stacking the same until it can be transferred to the timber merchants' premises. The discharge is therefore protracted, and militates against the timber merchant importing direct, and the Commissioners are anxious to provide more up-to-date methods of discharge. There are no timber cargoes being imported now, but it is expected that, as soon as normal conditions return, a large quantity of timber will be required, and the Harbour Commissioners feel that some special provision will have to be made for this trade, as well as the coal and grain trades. They have, therefore, instructed their engineer to prepare a plan showing a wharf, to be constructed in ferro-concrete, about 500 ft. in length, opposite yards which the Harbour Commissioners purpose devoting to the coal and timber trades. As the trade of the port develops, the wharf accommodation will have to be extended northwards, and it will doubtless be necessary for the Harbour Commissioners to acquire the lands lying between the present quay and Strand Road. The wharves, which were reclaimed and equipped with fitting-out wharves, 50-ton cranes and certain machinery by the Harbour Commissioners, at a cost of about £20,000, and let to the present lessees at the nominal rent of £35 in order to encourage shipbuilding and ship-repairing in the port, which is now rapidly developing, and in order that this may continue, a modern graving dock is requisite. The financial position of the Harbour Commissioners is such that they cannot undertake the construction of a new graving dock, and they feel that in the interests of shipbuilding and ship-repairing the matter is one which should be looked into by the Government. In order to keep pace with the times, the Harbour Commissioners will have to provide in the near future. Grain discharging plant; additional steam cranes for the discharge of coal; additional wharf accommodation for timber, coal, and other cargoes, additional sidings for the manipulation of railway traffic on the quays. The revenue for the last pre-war year (1913) amounted to £22,564 and the expenditure to £24,178—credit balance £1,612. The revenue for last year amounted to £21,481 and the expenditure to £21,637—credit balance £843.

Mr Field—continued.

Notwithstanding the fact that the Commissioners' rates and dues have been advanced owing to war conditions, their revenue is not adequate to meet their expenditure, and it is expected that there will be a deficit this year. This is due to decline in trade owing to the war and also to the large increase which has taken place in the prices of all materials, and also in wages. Owing to the war, no dredging has been carried out since the year 1914. This is a very expensive item, and must be faced in the near future.

Harbour Commissioners' Financial Position

Debt.				
3½ per cent Consolidated Stock	...	£147,041	6	11
3 per cent Debentures	...	4,480	0	0
Total	...	£151,521	6	11

Annual amount of interest to be met £3,280 17 0

Reserve Fund.—According to Section 31 of the Londonderry Port and Harbour Act, 1864, a reserve fund of £10,000 is authorised to be created for the purpose of extraordinary repairs of the port, etc.

Chairman.

2703 There are two or three points in connection with your statement about which I would like to ask you a few questions. You say, "The coal is discharged by means of steam cranes. There are five steam cranes belonging to the Harbour Commissioners available for the purpose." Are these travelling cranes?—They are travelling cranes, but only take back and forward at the berth. The berth has to be strongly piled for these cranes. They are on piles.

2704 Cannot you extend these 40 or 50 ft. out seawards?—Yes. The engineer is satisfied that that can be done. It is a matter of expense. It will probably have to be done.

2705 With regard to this new wharf that you have instructed your engineer to construct: What depth of water will you have?—We expect to have sufficient water to accommodate a vessel drawing 28 ft.

2706 I think you are bound to have a greater depth than 28 ft. up to the city?—It will mean the expense of dredging the channel from Moville to Derry, a distance of 18 miles.

2707 In putting down a new wharf, surely you will be prepared for a deeper channel?—The plans are not fully matured, but the instructions to the engineer are to go as far as he can in the river to get deep water, and we hope to have at least a depth of 22 or 23 ft.

Mr Phillips: I presume you refer to the dredging of the channel from the mouth of the river. In order to get up the present draft of water it has cost us, say, £3,000 or £4,000 a year when we did this, and I take it that if we are going in for a uniform depth of 25 ft. from the mouth of the river it would cost us, I suppose, anything up to £8,000 a year, and we have only a revenue of £20,000, so it would be impossible for us to undertake that ourselves. That would require Government assistance to a very large extent. We are quite open to do it if we saw where the money was to come from.

Chairman.

2708 Mr. Watson, you referred to the shipyards?—Yes, the place is let at a rent of £25.

2709 To whom is it rented?—The North of Ireland Shipbuilding Company. They got a lease from us.

2710 Are they building?—Yes, there are two fine ships lying at the fitting-out wharves at the present moment. One was launched on Saturday. Both are about 5,000 or 7,000 tons. They are employing about 2,000 hands at present in the shipyards. They have developed very much within the last twelve months, and they have a scheme on hand to expend £150,000 or £200,000 on engineering ships. Altogether it looks very healthy for shipbuilding here. We have tried as far as ever we could to assist them and to encourage them in this work, and we are willing to do more, if we could do.

2711 Are the shipyards using your graving dock?—Yes. They have been using it very largely on Government work. There is a depth of 12 to 13 ft. on the sill at high water, and the length is 320 ft.

2712 Could

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Mr. WATSON.

[Continued.]

(Chairman—continued.)

2302 Could that be enlarged?—I don't think it could. There is no room to extend it inland. The Commissioners have come to the conclusion that there is nothing for it but a new dock to meet the present requirements.

Colonel GRETTON.

2303 About the shipbuilding yards: is the rent for the whole period of the lease?—Yes, for 31 years.

2304 There are only six years of the lease gone. They have 25 years to run.

2305 Have you taken any steps to acquire any of the lands between the present quay and Strand Road?—We have two yards there. You will see them on the map. We own two yards there, and I said that it was quite possible, if the wharves were extended down there, that more land will be required, and that the Commissioners will have to acquire some of the land for the purpose I have described, the putting down of cranes rapidly from the vessels and stacking the timber until it can be transferred to the timber merchants' yards.

Mr. Phillips: The Londonderry Corporation have obtained statutory powers recently to take possession of certain lands abutting on the quays for Corporation purposes. The Harbour Commissioners thought that the Corporation were not justified in doing so, that those lands should be left for the development of the harbour.

Colonel Gretton: The Corporation have already established their tramway depot there?

Mr. Phillips: They have a tramway depot that could be better accommodated elsewhere.

Colonel GRETTON.

2306 The only alternative, Mr. Watson, is to enter to get some place for your railway, is to extend the wharves into the river?—We have very narrow quays, but there are places where we could have an additional siding, which would be exceedingly useful. We considered that that would be an advantage in the last few years because the trade has grown in connection with the tramways. We handled 200,000 tons of stuff on the tramways last year. We were precluded from putting down the additional siding owing to the expense and the difficulty of getting rails.

2307 Is there much traffic done on the opposite side of the river?—The Midland Railway is on the other side. There is a very large traffic, as a matter of fact, and at one period we had enormous Government traffic. That congested our tramways very much, because the steamers were not running so regularly. Talking generally, the tramway system is a very efficient one, and serves the public well and cheaply.

2308 Have the railway company considerable facilities for handling traffic on the other side?—No; they are very much handicapped. The Midland Railway have not sufficient space to handle their traffic satisfactorily in the yard, neither have the Great Northern Company.

2309 Could they handle the traffic before the war?—The traffic increased very much. There were big shipments of Government stuff. Before the war there was not so much difficulty, because the steamers were running regularly and the stuff was taken off the quay quicker.

2310 Would it be necessary to make extensions on the other side for the traffic after the war?—We may have to widen it, but, of course, we will be facilitated very much by these new extensions we are putting down as against mere haulage.

2311 Is the traffic on the other side handled by the Harbour Commissioners or by the railway companies?—By the Harbour Commissioners. The railway companies take up the stuff when we have brought it to the entrance of their depots.

Mr. LINCOLN.

2312 Can you say if Londonderry at any time has had State assistance?—That is one of the things that the Harbour Commissioners for long before my time have been pointing themselves on—that they have never asked for assistance from any quarter, I believe. I often heard the late Mr. John Cooke say that they were rather proud of that fact. They never got any assist-

Mr. LINDSEY—continued.

nance from the Government, or from the Irish Society either.

2313 Neither the Harbour Commissioners nor their predecessors?—Yes. Our Act was in '54. They were privately owned quays previous to that.

2314 The Commissioners never had any outside assistance?—No.

2315 Was there any assistance given in the building of the bridge?—We have nothing to do with that.

2316 Your jurisdiction extends from Moville to where?—Lifford Bridge.

2317 The river is supposed to be navigable to Lifford?—It is navigable to Strabane Canal.

2318 Down the river, are not the turnings sharp at places?—There is one difficult turning at the Creek, but we have had very little difficulty with it. I don't remember any serious difficulty there. There was one steamer only in my time that had trouble, but she came up without a pilot.

Mr. FIELD.

2319 Do I understand you have a dredger?—Yes.

2320 What sort is it?—A hopper dredger.

2321 Is it working now?—Not for four years.

2322 Is it lying up?—Yes.

2323 What is the reason that you have got it lying up?—There was no real need for it. The channel has kept quite all right for our requirements, and the expense of dredging is enormous, and would be very heavy just now. We have reports from the engineer each year as to the state of the channel and where dredging is required.

2324 Are some of the berths not quite so deep as you would wish?—The berths require to be deepened, but there are no complaints.

2325 With regard to the railways, I understand that they have no direct communication with the quays?—The Commissioners' tramway is connected with all the railway systems. The stuff is put on the wagons owned by the railway companies, and the Harbour Commissioners perform the haulage and the manipulation of the wagons on their estate and deliver the wagons at the railway companies' premises.

2326 Has it been your experience that ships have been absolutely delayed in the harbour on account of the absence of railway wagons?—I can hardly say that. I do not think it would be quite true to say that. There have been times when merchants, particularly coal-merchants, have complained of the want of wagons. I am bound to say that the merchants are fairly well served with wagons. Of course, in the last four years there have been difficulties.

2327 I understand that these occurrences did happen?—Yes, when coal vessels are in.

2328 That is a very serious matter, because I need not tell you that the longer you detain a vessel the more expensive it is?—Yes.

2329 And they would be less inclined to come to your port?—Yes.

2330 You want more space for the coal timber and grain?—Yes.

2331 How do you arrive at your revenue—have you dues on goods and ships?—Yes.

2332 What is the ratio that you realise between the two—half and half about?—Yes, just half and half.

Mr. HEANEY.

2333 What is the condition of the reserve fund?—£10,000.—We have at present a reserve fund. I may say that by an Act of Parliament we are obliged to have a reserve fund of £10,000 by extraordinary repairs to the harbour. That reserve has been created in part by the harbour. It looks a considerable fund, but it is not as big as it looks. Our reserve will be eaten up by the dredging and the repairing of the quays, which were deferred owing to the war. We have also to pay for the new electric cranes and cranes at present on order, so that our reserve fund is really very small.

Mr. FIELD.

2334 It is mortgaged?—Yes, that is the word.

Mr. HANSON.

2335 Your Commissioners spent £20,000 in developing the port in the last twenty years?—Yes.

2336 You

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Mr. WATSON.

[Continued.]

Mr. Henson—continued.

2325 You said \$50,000 was spent on the wharves?—That was not all spent in 30 years, but we spent a great deal of money on the quays. We bought new cranes. We spent a great deal of money—nearly \$50,000—in 20 years building sheds, paving the quays with setts, and other improvements.

2327 Does the summary you have given towards the end of your evidence, before dealing with your financial position, represent, in your judgment, the immediate requirements for the development of the port?—Yes.

2328 \$250,000 would cover all your requirements?—I should think it would pretty well. We would require more lairage accommodation for cattle. At present it is not sufficient. We have not proper lairage.

Mr. Field.

2329 Have you a large export of cattle from this port?—Yes, we had exported in 1913 114,225, and in 1917 74,700.

2330 In view of that enormous live-stock export trade, have you made any efforts to provide proper lairage accommodation, or have the steamship companies?

Mr. B. S. Cripps, Secretary to the Londonderry Harbour Commissioners: The steamship companies have not provided any lairage or pen accommodation. The cattle pens belong to the Harbour Commissioners.

Mr. Field: I have heard some complaints about the accommodation.

Witness: Our cattle pens are considered very good.

Mr. Field.

2331 May I suggest, Mr. Watson, to you, that you should add that lairage accommodation is your list of immediate requirements for the proper equipment of the port?—Yes.

Mr. Hudson.

2332 I understand that you take the traffic from the railway companies at the end of your quays, and that you marshal it yourself?—Yes, that is so. There is in-and-out traffic. We take it up from the depots and marshal it ourselves.

2333 You said that you attach great importance to having quay room that would allow you to get sufficient

Mr. WILLIAM PHILLIPS, J.P., Member of Londonderry Harbour Board, called in; and Examined.

Chairman.

2342 You have heard Mr. Watson's evidence?—I have.

2343 Is there anything you would like to add to it?—I cannot hardly add anything to what Mr. Watson has said except to say that the Harbour Commissioners are most anxious to bring this port up to date. They feel that after the war, unless the facilities at the port are very much better, they will be left behind in the race. The only thing I have to add is that I hope, as a result of your inquiry, that some assistance will be given to us to bring this port to the state that it ought to be in.

2344 Your distribution goes by rail and also by canal?—Yes.

2345 You are quite a distributing port?—Yes. We practically accommodate some five or six counties from here. We are going down to almost the borders of Sligo, and sometimes further than that, and then we supply county Tyrone and also county Donegal, which is, I need not tell you, the second largest county in Ireland. Altogether, this is a very considerable distributing centre.

2346 It is the port for export for quite a large area of country?—It is. In fact, traffic is drawn as far down as Clones, Carran and Sligo, so that facilities are essential for the development of the traffic of the entire north-west district.

2347 Do you consider that you have got sufficient shipping facilities here for the needs of the surrounding country?—No, I don't think so. Do you refer to the cross-Channel traffic?

2348 Yes?—Instead of large ships coming in and taking nine or ten days to discharge, it is absolutely neces-

Mr. Hudson—continued.

sary to deposit cargo when you cannot get railway wagons for coal discharge?—Yes.

2349 And then, I think, the evidence was to the effect that in very few instances did you fail to get wagons?—I was speaking of the general traffic when I said that more than the coal traffic. I do still say that coal steamers are delayed frequently for want of wagons. Sometimes, perhaps, two or three steamers might come in at one time and be discharged, and the railway companies could not provide sufficient wagons to keep the vessels working. Occasionally—I may say, frequently—there is a delay for want of wagons.

2350 What are the rules between the merchants and the railway companies with regard to the ordering of wagons?—The merchants send a requisition to the different station masters that they want so many wagons for a particular day, but if it happens that two or three coal merchants send for the same day, sometimes the railway companies are rather in a difficulty.

2351 Is not there any regulation requiring the merchant to give so many days' notice for the wagons?—I think there is, but it is not easy lately to give notice, as it is impossible to tell when the vessels would arrive.

2352 You get some sort of intimation that they are coming?—Yes, but the war has upset that.

2353 I think the complaint has been chiefly on the city side. Has there been any answer from the railway companies to the complaint that they are not giving wagons?—They deny that they have been short of wagons, but I am not making any serious complaint against the railway companies, because I think they do their best.

2354 Is not it because you do not give them sufficient notice that the wagons are not available?—No. I do not think they say that. It is impossible lately to always give notice for the time when the steamer will arrive, as its arrival is uncertain.

2355 You have not any specific case that you could give in evidence to show that the railway companies' excuse was that they had not sufficient wagons?—No, I never knew them to say that.

Mr. Lindsay.

2361 Your debentures are being gradually paid off?—We have \$4,000 at 3 per cent. which the holders can ask for on giving six months' notice.

Chairman—continued.

2362 They should be discharged in two or three days. We would require to have a grain elevator here as much as any other port if we are to hold our own. The vessels coming here should be returned in very much less time than they are at present. The Harbour Commissioners have carried out all the improvements within their power, but they would be unable to effect the further improvements that are required without State assistance.

2363 What cargoes have you to give the ships that come in here to take away?—We have no cargoes for foreign vessels. They come in with India corn or wheat.

2364 Have you anything to export for them?—No.

2365 Can you get anything in the neighbourhood?—Not in sufficient quantities. We have not a sufficient quantity to offer to such boats. When quantities have to be sent it is largely for cross-Channel, and we have not sufficient for a full cargo there either.

2366 Your cross-Channel boats, of course, take cattle, and things like that?—They do. They are quite ample for the transport across Channel.

Mr. Field.

2367 I understand you are connected with the Laird Company?—Yes.

2368 And you are the oldest member of the Harbour Board?—Yes.

2369 Your company do their business very well. You do a large business in the export of cattle?—Yes.

2370 Why not bring pressure to bear on the Harbour Commissioners or the Corporation, or someone interested in the live-stock industry, to provide decent humane

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Mr. PHILLIPS.

[Continued.]

Mr. Field—continued.

increase accommodation for these cattle while they are awaiting shipment?—I suppose it would be the right thing to do.

2857 Is it not nearly time to do the right thing?—Derry Port is a small place.

2858 I wouldn't like to say that!—It is a small port compared, say, with Dublin. A great many people in Derry provide accommodation for cattle, and the cattle dealers really prefer to have their cattle with those people who are for the most part their friends or acquaintances, and for the Harbour Board to step in would be considered an interference on their part; but I desire to say that the necessity for providing accommodation has become more pressing, and the Harbour Commissioners have been taking into consideration the question of better accommodation for cattle. I may say that it is only within the past twelve or eighteen months that the Harbour Commissioners have been approached by the cattle dealers for some such accommodation.

2859 Will you do your best as a Laird man and as Harbour Commissioner to provide that accommodation which is necessary?—I will, and I will ask you in return to assist the Harbour Board.

Mr. Keating.

2860 You are familiar with the financial history of the port?—Yes.

2861 Did the Irish Society provide funds to develop the port?—No.

2862 Never at any time?—Never at any time within my recollection.

2863 Who are the holders of the debentures at 3 per cent?—They are the local people here—the old people belonging to the city who have got such confidence in the Harbour Board that they know that they have only

Mr. Keating—continued.

to ask for their money and they will get it at once.

2864 I share that confidence myself?—Thank you.

Mr. Lindsay.

2865 Considerable expenditure has been made by the Harbour Commissioners in improving the harbour?—Yes.

2866 Has that expenditure, on the whole, proved remunerative?—With the exception of the money expended upon the shipyard, it has.

2867 Do you think that the expenditure that you contemplate will be remunerative?—Not at present.

2868 Will it be dead weight?—It will be dead weight for many years to come.

2869 Bringing in no revenue?—It will bring in a certain amount of revenue.

2870 It will be to a certain extent remunerative?—Yes.

2871 There is no estimate as to what is likely to be the increase in the revenue?—No.

2872 Is that a business-like way of undertaking expenditure?—We have not committed ourselves to that extent.

2873 You contemplate it?—Yes. There is little doubt that before we undertake responsibility we will have to arrive at conclusions of that sort.

2874 What is the real distance from Glenties to Derry?—Eighty-five miles.

2875 Is it not rather extraordinary to bring the traffic to Scotland from Glenties to Derry?—No. It is the direct route. We can give the traffic as good a despatch as Belfast.

2876 I cannot agree with you. If you look at the map, Belfast is the shorter route to Glasgow?—Derry is the direct route, when you take into consideration how little the railway line is congested as compared with the Belfast section.

Mr. R. S. CHURCH, Secretary and General Manager, Londonderry Harbour Commissioners, called in; and Examined.

Chairman.

2877 You have heard the evidence of Mr. Watson?—Yes, sir.

2878 Have you anything to add to that?—No. I think he has gone over the whole ground very well, and made all the points that we desired to bring under your notice.

2879 You would like to say something in reference to the lairage accommodation for cattle intended for shipment?—Yes, Sir. There is no lairage accommodation for cattle intended for shipment from Londonderry. Inspection pens have been provided by the Harbour Commissioners on the Queen's Quay, where cattle, sheep and pigs are placed for inspection by the inspectors of the Department of Agriculture and Technical Instruction for Ireland. Cattle which cannot be shipped on the day of arrival in Londonderry have to be accommodated in private yards and fields in the district, and the cattle dealers feel this to be a great

Chairman—continued.

hardship. To provide adequate lairage accommodation it would be necessary for the Harbour Commissioners to acquire sufficient land for the purpose convenient to the shipping berths, and to erect thereon suitable covered pens for cattle, sheep and pigs. This is a necessity, and will, of course, involve a considerable outlay. The following are particulars of the live stock exported from Londonderry for five years from 1913 to 1917 inclusive:—

Year.	Cattle.	Sheep.	Pigs.	Horses.	Total, including goats, etc.
1913	114,326	33,173	1,530	384	119,339
1914	92,017	24,396	4,690	448	121,551
1915	98,624	28,397	5,194	379	127,496
1916	77,789	29,968	10,853	108	118,742
1917	74,700	30,838	2,116	189	107,823

Mr. R. GRAHAM, Secretary and Manager, Strabane Canal Company, called in; and Examined.

Chairman.

2880 I understand you are secretary and manager of the Strabane Canal Company?—Yes, sir.

2881 Can you give us some information?—Yes. I have prepared a statement. The Strabane Canal was constructed in 1791 at a cost of £9,953 15s. 3d. (exclusive of the lands which were given free by the Marquis of Abercorn) of which £3,518 was a free grant by the Irish Parliament—the balance being paid by the owner. The canal runs from Strabane and joins the river Foyle; the length of it is 4 miles and 7 perches statute, the width of top 31 ft., at water level 27 ft. wide at the bottom, and 9 ft. 6 in. deep, 9 ft. water on the sills of the locks. The canal was constructed almost entirely out of bogland, and the banks seem to have been formed by the material excavated, without any regard to puddling, and they have been constantly a source of trouble. There are two locks, 106 ft. long by 28 ft. broad each. The first lock is three miles from Strabane and the other quite near to the river

Chairman—continued.

Foyle. The canal seems to have been worked on behalf of the Marquis of Abercorn from completion up to the year 1830, when it was leased, but no record seems to have been kept of how that company worked it. In 1850 it was leased again to the Strabane Steamboat Company, who worked it up to 1890, and that company went into voluntary liquidation. It was leased again in 1890 to a new company called the Strabane Canal Company, Limited, formed with a capital of £25,190, for 31 years at a yearly rent of £ 00; this rent was reduced about 15 years ago to £220. This reduction in rent arose by the owner of the canal receiving £1,000 awarded the company as compensation by the Londonderry and Strabane Railway Company for damage to the canal owing to a variation of their plans. About four years ago the present Duke of Abercorn sold his interest in the canal to a few Strabane merchants for £2,000. The losses—owing to the loss incurred annually in working—applied to the new owners.

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MR. GRAHAM.

(Continued.)

Chairman—continued.

owners for a reduction in the rent. They wrote they would consider our application, but notwithstanding repeated requests to do so, no reduction has been made of the rent reserved of £320 per annum. The earnings for the present financial year commencing 1st May average £14 3s per week. The loss I estimate to the lessee is, say, £500 a year, exclusive of loss of dividend on capital involved, and depreciation. In 1906 the tonnage carried was 13,481; 1909, 16,000; and this was gradually increased up to 31,561 tons in 1909. The Dargal railway extension, Strabane to Derry, was opened in that year, and, from the date of opening, the Canal Company had two railways in competition, viz., the Great Northern, and Derry and Strabane Companies; owing to the competition the tonnage fell to 10,690 in 1902. About this time an arrangement was arrived at between the two railways, and the traffic on the canal increased to 23,214 tons in 1904. The average traffic then for about ten years was 21,000 tons; in 1914, 19,120 tons; 1917, 12,523 tons; and for the financial year ending 29th April, 1918, 9,529 tons. Dividends were paid from the year after the formation of the present company up to 1911 from 3 to 6 per cent. Since 1911 no dividends whatever have been paid or any sum set aside for depreciation. The loss for the last financial year was £500, exclusive of depreciation. The present lessees put on four pairs of new lock gates, one new bridge, and did a considerable amount of permanent maintenance, and I am of opinion the canal and works are in better order now than when the present lease was made; still, there is room for very great improvements. The canal would require to be dredged the entire way and the banks strengthened, particularly the east bank, where erosion on parts has taken place, and this work could be carried out by piling and depositing heavy clay material on the top of the banks. The west bank is in good condition, as it forms the towing path, and is also a public road for about two miles. The sills of both locks should be excavated to the foundation and re-laid in concrete. They were originally constructed of stone and lime mortar, and with the effluxion of time the mortar has perished to some extent, and slight leakage takes place in consequence. The water supply is got from the Ballymagerry Burn, or River, and is conducted about a mile and a half through an artificial feeder, part of which is really an aqueduct; the banks on this feeder require to be raised and the feeder in other portions deepened as a permanent improvement. The feeders are annually cleaned out in order to prevent the deposit reaching the canal. The water supply from Ballymagerry burn is abundant in the winter season or wet weather, but during drought in summer is not sufficient, and the canal has been occasionally closed for a few days. This supply is augmented by a natural reservoir at Moor Lough, 60 acres in extent, eight miles distant, and it could be further improved by lowering the outlet, say, 3 ft. to 3 ft. 6 in., and spring from the lough, which would give a constant and perpetual supply. The catchment area to this lough could also be improved if necessary. A reservoir store on Derry Quay would be of advantage, and the store at Strabane enlarged. The Canal Company have often carried goods from Londonderry to Strabane for Newtonnawest, Castlederg, Castlederg, and Clady, etc. This traffic has been lost to the Canal Company, owing to the railway company reducing the rates paid to these stations. During the spring months we have carried artificial manure from the Ulster Manure Company, Loughally, Londonderry, to Strabane, for distribution by the three railways terminating there. There are two small bridges over the canal, one of which requires repairs, and will have to be seen to as soon as normal conditions return, when suitable material can be had. The second bridge will have to be replaced at a later date. The company have had to contend with the canal difficulties by low water occasionally in the summer, referred to above, and ice in the winter. The ice-breaking apparatus consists of a barge sheathed with iron. All towing is done by horse power. The banks of the canal as constructed would not admit of the use of motor power. The canal is extremely useful to Strabane and surrounding districts; it would be a serious blow to the trade of Strabane should it be closed by the present lessees, as it manifestly must be at the expiration of the lease, owing to the annual loss in the past. This

Chairman—continued.

can only be met by an annual subsidy being given to whoever undertakes its work and maintenance—it has always been the means of keeping a check on the railway rates, which would otherwise, no doubt, have been higher. The beam is so situated in Strabane that a horse and cart will deliver two loads as compared with one from the railway. Goods have often been shipped from Dublin to England, thence by Derry to Strabane, at a cheaper rate than direct by rail from Dublin to Strabane; almost all the traffic on the canal is earned by the company's boats. There are no by-tenders on the canal, with the exception of a few small boats. The Royal Commissioners on Canals and Waterways, held in March, 1911, recommended a grant of £5,000 for improving the Strabane Canal.

Chairman

- 2882 How many boats have you got?—Ten lighters.
2883 You have no power barges?—No.
2884 Have you considered towing the boats with mules?—Yes, it would be convenient.
2885 How are the barges loaded?—Overside from the steamers.
2886 Have you any estimate of the cost of dredging the canal?—No, I have not, sir. I am afraid it would take a special sort of dredger. Coming up to Strabane you have got many miles of river?—Yes.
2887 What is the river like?—The river is all right up to Carrickmore. The channel shifts in the river practically at every log float.
2888 What depth have you got in the channel?—It depends on the state of the tide. We have quite sufficient water in spring tides. In neap tides we have not. It has been as low as 3 ft.
2889 What is the bed of the river?—Gravel.
2890 You are supposed to have 2 ft. in your canal?—Yes.
2891 And you have that 2 ft. in the river except for two miles?—Yes.

Mr. Field

- 2892 Do I understand you to say that the canal banks were made almost entirely of bog land?—Yes.
2893 If you wanted to repair them and to prevent them leaking, would it cost a great deal of money?—It would cost a considerable amount of money.
2894 Did you ever dredge the canal?—No, we have not dredged it, but there was a hopper dredger from Derry working on it. It was not satisfactory.
2895 You have not a dredger of your own?—No.
2896 And never had?—No.
2897 There are cattle grazing on the bank?—Yes, on the feeder banks.
2898 And breaking them down?—Yes.
2899 Cannot you put that off?—It is a question of ownership.
2900 Has it been your experience that the railways have limited their rates in the endeavour to shut up the canal as a competitor?—I don't know that they have limited them to shut up the canal, but they have limited them.
2901 To get the traffic?—Yes.
2902 Does it not amount to the same thing?—I think so.
2903 Has your company entered into a working arrangement with the railway in regard to rates?—No, we are independent. We have nothing to do with them. They asked us often and often to come in with them to fix the rates, and we refused.
2904 I think you told us something about the percentage rate by the railway?—Yes.
2905 It is cheaper, you told us, to ship goods from Dublin to England, thence by Derry, to Strabane, at a cheaper rate than direct by rail from Dublin to Strabane?—Yes, that has been done for years.
2906 You have no stores in either Londonderry or Strabane?—There is one in Strabane.
2907 You cannot expect to get goods unless you have decent stores?—No.
2908 Have you any idea of applying electrical power or motor power to propel boats?—Our lease expires in three years, but I understand the owners will form a company, and that is the intention.
2909 There are no by-tenders working on the canal now?—No.
2910 Have

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Mr. GRAHAM.

[Continued.]

Mr. Field—continued.

2920. Have you had any application from them?—None. There may have been a few about boats.

2921. The only thing you are in a bad way about is this portion of the river which requires to be dredged in order to get over the difficulty of the tides?—Yes, that will get over a good bit of the difficulty. I often wonder would the cost be worth it, because the channel shifts in the river, and we could not get in unless in high water. We must sort out sailings so as to be at the locks at high water.

Colonel Gretton.

2922. Is your company responsible for the upkeep of the canal?—That is a point I don't like to answer. Mr. HANSEN. Three years hence that question will be debated.

Colonel Gretton.

2923. Who trade on the canal?—All the merchants of Stranabane.

2924. Are there any complaints by the traders as to the service supplied by your company?—There are complaints by one or two small traders. They expect that we should put on a steamer at the cost of £3 or £4

Sir JOHN McFARLAND, Bart., Shareholder, Stranabane Canal Co., called in; and Examined.

Chairman.

2925. You wish to give us some evidence, Sir John?—I would like to say that I have not received any return on the shares of the company, which I hold as security for loan. I have received no dividend, and nothing has been set aside for the depreciation of the plant. At the present time, although the Secretary estimates the loss at £300, I estimate it at fully £1,000.

2926. Do I understand that you have no direct interest in the canal further than that you have got these shares as security for a loan that you made?—Yes.

2927. The only way that any evidence that you could give would come under our reference would be if you would tell us how, if that canal was improved, it

Mr. THOMAS ELLIOTT, Director of the Stranabane and

Chairman.

2928. I understand you are a director of the Stranabane and Foye Navigation Co., Ltd.?—Yes, sir.

2929. You have heard the evidence of Mr. Graham?—Yes.

2930. Are you in agreement with him?—Yes, so far as the facts and figures are concerned.

2931. You virtually agree with what he said?—As to the facts and figures, yes.

2932. Have you anything to add to what he has stated?—Not as to the facts and figures.

2933. Can you tell us what you think would be a good thing in order to improve the facilities?—The waterway in the river requires to be deepened. The canal requires to be dredged, and in the matter of equipment, stores and modern plant are required at the Stranabane end. I understand that at this end also a close is required. Then the locks require some substantial repairs, and also the embankments. The settling-dam of the feeder requires to be practically reconstructed, and there wants to be some improvement in the outlet of the feeder from Moorlogh. In presence of his Director, Sir John McFarland, Mr. Graham has not gone fully into the reasons why so much requires to be done. His Company goes out of evidence in three years' time, and naturally their object is to get out as quickly as they can. Half of the barges are out of working order. There are only half of them running. They say that they are prevented by war circumstances from keeping the canal in a fit condition. Perhaps they are. It must be admitted that the way has reduced traffic to about half its normal amount, or less, but the fact is that if things go on as they are going, there will be no money to provide plant. My Company would be very slow to embark on anything but the minimum immediate improvement that would be absolutely necessary to keep the thing going, owing to the high prices, without respite. The purchasers of the Duke of Abercorn's interest are merchants in the town of Stranabane. All of them are in

Colonel Gretton—continued.

a run for a few cwt. of goods. We cannot do that, and it is owing to war conditions.

2935. Are there any general complaints?—No; these are only the complaints I have mentioned.

2936. Are these the only complaints?—There always have been minor complaints. It is very hard to satisfy everybody.

Mr. Lindsay.

2937. When there are only 3 ft. of water in the river, what depth is on the sill?—About 9 ft. on the sill.

2938. When there are only 3 ft. in the river?—Yes.

2939. So that the sill does not require lowering?—No.

2940. Do you pay toll to the Derry Harbour Commissioners?—No. The merchants pay Derry dues on their goods. We pay no dues.

2941. We had evidence that the Harbour Commissioners were supposed to keep the river up to Lifford Bridge?—Yes.

2942. I suppose if the Harbour Commissioners were compelled to dredge this portion of the river they would charge?—Yes.

2943. You suggest a subsidy for the canal?—Yes, or, better still, a grant.

Stranabane Canal Co., called in; and Examined.

Chairman—continued.

would be a greater benefit to the traffic of the place, and therefore be in a better position to pay interest to the shareholders?—I look on the closing of the canal as a great calamity to Stranabane. The canal should be in the hands of the owners—those who paid £2,000 for the Duke of Abercorn's rights. I certainly cannot continue sustaining this loss, nor can I continue any scheme for the improvement of the canal, because I do not intend to carry it on.

Mr. Field.

2927. Do you consider that if the canal were shut down it would be a calamity to the people of Stranabane?—Yes.

Foye Navigation Co., Ltd., called in; and Examined.

Chairman—continued.

trade except myself. The sole object in buying the canal was for the benefit of the town. They understood that the best witness, Sir John McFarland, was offering to purchase the fee simple for the express purpose, as they supposed, of offering it to the railway. I cannot add anything to Mr. Graham's facts and figures, but I do not agree with him altogether as to the reasons. Mr. Graham complained of cattle grazing on the canal banks. I understand his company lets the grazing of the bank. I may be wrong, but I was told that his company lets the grazing. If a grant were to be made, I would suggest that it should not be made to the existing carrying company. My company does not wish to grasp at any unusual or unreasonable profit.

2934. I understand that the fee simple was obtained by your company in 1912?—Yes, 1912-13.

2935. And you have got no direct interest in it except in respect of the fee simple, which comes to you in 1921?—Yes.

2936. And as your company is composed of business men who have bought the canal to make it useful for their business and the town, I expect that in 1921 they will take the necessary steps to protect their interests?—Yes.

2937. If you put money into it now, it would all come back to you?—Now it would be possible to put in what would be necessary.

2938. Do you believe that you could get 9 feet of water in the canal right through?—I am afraid not, because the original draught of the canal was only 9 feet; 7 feet 6 inches would be a very good draught.

2939. What beam can you take there?—Up to about 18 feet safely.

2940. What is the height under the bridge?—All the bridges except the new railway bridge, are movable bridges, and the new railway bridge would be sufficiently high for ordinary traffic. That allows the steam tug through without lowering its funnel.

2941. Supporting

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Mr. ELLIOTT

[Continued]

Chairman—continued.

2941. Supposing the Canal Company was not running, who is the authority that would step in?—I don't know of any authority. The lease of the existing carrying company contains a clause to maintain an efficient settler on the canal.

Mr. HENNES

2942. Had you any relations with the Board of Works?—My company has not.

2943. Of the lease company?—I cannot speak for them. The lease company, I think, had some negotiations.

2944. Have you not to make a return to the Board of Trade?—No.

Mr. FICK

2945. Does this canal serve any place except Strabane and Derry—is it practically for the advantage of these two towns?—Yes, commercially.

Mr. JAMES E. O'DONNERTY, D.L., representing Buncrana Pier Committee, called in; and Examined.

Chairman.

2954. I understand you represent, with the Secretary and others, the Pier Committee at Buncrana?—Yes. It is a pier that was established practically by local subscribers, principally led by the landlords of the place, and by a loan from the Grand Jury.

2955. May I first of all ask of you if you know our terms of reference?—Yes. I am anxious that the transport in connection with one of the greatest fisheries in Ireland should be developed. Unfortunately, we are to-day a committee without a pier. When we had it developed to the extent of 10,000 tons a year and had been promised a grant by the Development Commissioners, the war broke out and the Admiralty took over the pier. Since that day, four years ago, no fish have come to us at all, but the place is there. The railway company is represented here to-day, and will give evidence. If, as we hope, in a short time the pier is re-established in the place—I don't believe we will ever get to the old place—we then expect the railway will be brought into communication with it. We were sending the 10,000 tons of fish by cart a mile away, whereas the railway is within 200 yards.

2956. The fact is that, at present, the Admiralty have got your pier?—Yes.

Mr. HENRY HUNT, General Manager and Secretary, Londonderry and Lough Swilly Railway, called in; and Examined.

Chairman.

2962. You wish to give us some evidence?—After what you stated to the last witness, I do not know that I have any evidence to give you that would come within your reference. If you are only dealing with existing facilities, I am afraid I have no evidence to offer. The evidence I intended giving had reference to possible facilities at Buncrana.

2963. Is it a fact that you have got the promise of the money when the war is over?—The Donegal County Council, or some other body, have received the promise of financial support from the Government to make new wharves and harbour works, and anticipating the development of Buncrana as a shipping and fishing centre, my company have this year promoted a Bill in Parliament, and contemplate the building of a connecting line from the existing railway at Buncrana to the proposed harbour works, because they are convinced that Buncrana does offer facilities for traffic.

2964. That is very interesting?—I have prepared a statement, but it was prepared perhaps under a misapprehension as to the evidence that should be given. I was instructed to apologise for the absence of the Chairman of our company, who is away, and is not very well. The following is the statement which I had prepared:—The Londonderry and Lough Swilly Railway Company desire to support the application of the Buncrana Council. Anticipating the development of Buncrana as a shipping and fishing centre, they have this year promoted a Bill in Parliament seeking authority, amongst other things, 1. To make a connecting line from the existing railway at Buncrana to the new harbour works which it is anticipated will ultimately

Mr. FICK—continued.

2946. The canal was built before the railway?—Yes.

2947. In your opinion, does a sufficient amount of traffic exist between Strabane and Londonderry to justify the spending of a lot of money?—Yes.

2948. Is it not the Strabane merchants that purchased the canal?—It was.

2949. And it is their concern?—Yes.

2950. If it is worth carrying on, would they subscribe sufficient capital?—They intended to provide the capital that would be necessary.

2951. Would they do so now?—I cannot say. It is only three years before the lease expires.

2952. Is not Sir John McFarland, owner of the canal?—He is owner of the carrying company.

2953. How was it that you did not appear before the Canal Commission?—We were not in existence.

Chairman—continued.

2957. And you don't want any further facilities until you get back your pier or get another pier?—Yes. It is in the future you are providing.

2958. That would not come within the terms of reference. Our terms are to investigate and to report upon the facilities afforded for transport by the ports and canals, and the question of improvement of such facilities?—I don't want to occupy your time.

2959. I am explaining to you why we are helpless in the matter?—I doubt it very much.

2960. I don't doubt it at all?—Are you going to abandon a fishery?

2961. We have nothing whatever to do with fisheries. We are here to investigate the facilities offered by the ports and canals, and however sympathetic we may be we cannot do anything in this case?—I cannot argue with the Chairman on a question of order. It seems to me that it is well within your consideration, now that we have been trying to get this railway connection. We have put in a memorial showing the state of affairs. Mr. Hunt said that we had been allotted £25,000 by the Development Commissioners for the development of Lough Swilly. We did not get a penny of that, and we have come here to tell you that instead of getting money, we lost the pier.

Chairman—continued.

be carried out. 2. To own and work steamers from Buncrana and other places on the Lough Swilly. 3. To erect new station premises at Londonderry. 4. To improve the transfer of traffic from the harbour lines and other company lines at Derry. Buncrana possesses exceptional advantages either as a distributing centre for the whole of the Fanned Peninsula, for which Londonderry is the natural market centre, or as a place of call for overseas boats. Prior to the war the herring fishing industry reached to a matter of 10,000 tons a year, and with an extended harbour accommodation it might easily have been much more. The trade in cattle, corn, potatoes and other foodstuffs from the Fanned Peninsula and the general merchandise in the opposite direction would be greatly facilitated by the provision of better facilities at Buncrana. The distance from Londonderry to Buncrana is 12 miles, and the L. and L.S.R. Company run and maintain an efficient service of trains, and are prepared to run additional trains, provide additional engines, carriages, and wagons, to meet the requirements of a much larger traffic. The extensive naval traffic would be greatly assisted by the facility of being able to load direct from railway truck to tender. Generally, the L. and L.S.R. are prepared as a carrying company to do everything reasonably possible, so far as they are concerned, to assist in the development of Buncrana, either in its home industries or in its position as a shipping centre, for which it is so eminently suitable. The directors of the L. and L.S.R. Company will be glad at any time to confer with the proper public bodies as to the complete provision of all the neces-

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Mr. HUNT

[Continued.]

(Chairman—continued.)

any arrangements and facilities, and if need be will enter into a binding agreement for the satisfactory working of all the traffic to and from Buncrana.

Mr. Field.

2965 What would be the length of the connecting line from the existing railway at Buncrana to the new harbour works which it is anticipated will ultimately be carried out?—It is a matter of about 200 yards.

2966 It will be a broad gauge?—At present the line to Buncrana is a 3 ft gauge, but if the development of Buncrana requires it, I don't think my company

Mr J F A SIMES, Solicitor, representing Solicitor to Donegal County Council, called in; and Examined.

(Chairman.)

2967 I understand that you are one of the Solicitors to the Donegal County Council?—Yes. I represent my partner, Mr. Wilson, who is the official solicitor, and I desire to say to you that the Chairman of the County Council, Mr. James Donnelly, was very anxious to appear before your Committee and to bring before you some matters which he considers of importance to the county. Unfortunately he was doubtful as to where and when you sat. From some words you said some time ago I gathered that the subject matter of your inquiry is existing facilities.

2971 Existing facilities and suggestions as to how these facilities can be improved?—There are two surveyors in County Donegal, and these gentlemen are here at present, but I understand that it would be more convenient to the Committee if they put their views in writing and that you would give these views the same consideration as if you examined them as witnesses.

2972 Certainly?—In these circumstances it would shorten my remarks to the Committee, because I would ask the two surveyors to put their views in writing with regard to the improvements which the County Council desire to bring under the notice of your Committee. Generally speaking, we regard the improvement of the Balacraun pier as of the greatest importance, but I know that the occupation of that pier by the Admiralty has nothing to do with your activities here, but it is alleged, rightly or wrongly, that the Admiralty intend to keep the pier. There is a suggestion that there should be another pier built, and there is ample room and space for such a pier. About the southern division of the county, there is a pier at Bartospect, and the County Council, before the outbreak of the war, had assisted in extending the pier, and anything that could be done to accelerate the extension of it would be important. The Chairman of the County Council is interested in the new pier at St. John's Point, in Donegal Bay. The fishermen there cannot fish properly. They have to use light gulls, and that will be one of the matters with which the County Surveyor will deal. At St. John's Point the fishery requires development badly. It is quite close to the existing Donegal Railway, and it would be very important if a connection were made. Would the Committee look into the question of erecting a pier there?

Mr R. H. TUNE, Solicitor, representing Londonderry Chamber of Commerce, called in; and Examined.

(Chairman.)

2982 You represent the Chamber of Commerce of Londonderry?—Yes. Associated with the Chamber of Commerce are the various local councils. The Mayor is President of the Chamber of Commerce, but is unfortunately unable to attend. I was asked to bring before your Committee the question of railway developments.

[The Witness explained on a map the points to which the Chamber of Commerce were of opinion railway facilities were required.]

2983 I understand the Chamber of Commerce explain that they have not got proper transport facilities

Mr Field—continued.

would be adverse to putting down a third rail to facilitate the transfer of broad-gauge vehicles.

Mr. Hedges.

2967 I would like to ask whether the Bill is being introduced next Session?—It went through the Commons this year, but it was too late to get through the Lords.

2968 Is the intention to introduce it in the next Session?—We expect that the Bill will go through.

Mr. Field.

2969 There was no opposition in the Commons to it?—None at all.

(Chairman—continued.)

2973 It is not a port?—No. It is close to Killybegs. Killybegs is a port, and there are also piers there which require to be looked at, and with these the County Surveyor will deal. The railway runs right past St. John's Point.

2974 This is very interesting, but I don't think it comes in under our Reference?—If the County Surveyors deal with these matters in their statements they will be looked on sympathetically.

2975 It would give us information?—There is another matter that I have been asked to bring under your notice, and that is the construction of a railway from Glenties to Ardara.

2976 I am afraid that is outside our scope?—It is a much-needed work, because the railway at Glenties stops short of the natural outlet.

Mr. Field.

2977 Are not Killybegs and St. John's Point under the Congested Districts Board?—Yes, the whole County Donegal is.

2978 Would it not be their function to do those things to which you have directed our attention?—It might be.

2979 I think it is nearer to their function than it is to ours?—I want to let you know the wants of the locality.

2980 The Sub-Committee paid a visit to Downing's Bay. You represent the County Council?—Yes.

2981 I understand that in Downing's Bay your County Council realise about 2000 a year in the payment of 3d per "cran," etc., and that the road to Ovedough is not in a condition to suit a motor service. May I ask if you would bring before your County Council the immediate desirability of dealing with that road?—The County Surveyor is here.

(Chairman.) I don't think we have any right to ask Mr. SIMES to do that.

Mr. Field.] I promised the fishermen to draw the attention of the County Council to this matter. I think it is an extraordinary thing if the County Council are deriving an income from this particular fishery that it should not make the most suitable.

(Answer.) You cannot take that statement, Mr. SIMES, as coming from the Committee. It is the opinion of Mr. Field individually.

(Chairman—continued.)

over a large area of country that would otherwise be supplied by the port of Derry?—Yes. I thought it better to put before the Government a scheme of railway improvement applicable to the whole of Ireland* and to get all sections to press on the Government, and I have prepared a memo. on the subject. You will be able to understand the scheme from this map.

(The Sitting then concluded.)

* Note.—This matter did not come within the Sub-Committee's Terms of Reference.

EIGHTEENTH PUBLIC SITTING: MONDAY, 23RD SEPTEMBER, 1918,

At the TOWN HALL, COLERAINE, at 4 p.m.

MEMBERS PRESENT:

Colonel Grotton, M.P.
Mr. William Field, M.P.
Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.,
Mr. P. J. Hauman

Mr. PHILIP MACNULTY, Secretary.

SIR ARTHUR SHIBLEY BENN, M.P., IN THE CHAIR

Chairman: May I say first of all why the Sub-Committee is here. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom; to secure effective supervision and co-ordination, and to ensure that such developments and improvements shall be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a Sub-Committee, of which we are members, to investi-

gate and report upon facilities for transport offered by the ports and canals of Ireland, to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have visited a number of ports, and we have now come to Coleraine. We are anxious to get information regarding the transport facilities and suggestions as to their improvement in order that we may be in a position to report to our Main Committee at the beginning of next month.

Mr. WILLIAM HENRY, Secretary, Coleraine Harbour Commissioners, called in; and Examined
Chairman.

2384. You are Secretary of the Coleraine Harbour Commissioners?—Yes, sir.

2385. You are going to make a statement?—Yes. The Coleraine Harbour Commissioners were constituted the Harbour Authority under the River Bann Navigation Act, 1879, and authorised to carry out works for the improvement of the navigation of the River Bann. Under an earlier Act, viz., the River Bann Navigation Act, 1603, the Coleraine Town Commissioners carried out dredging of the river bed and other works at a cost of £22,235, but these were ineffective for navigation purposes until the river entrance had been deepened and made safe. The works authorised by the Act of 1879 consisted chiefly of two stone moles at the entrance of the river, the completion of the dredging of the river bed, and the erection of wharves at Coleraine. These were all executed in accordance with plans prepared by the late Sir John Coode, C.E., of London, and, with the addition of a training bank subsequently constructed, cost £73,790. Under a later Act, viz., the River Bann Navigation Act, 1886, a railway was made connecting the harbour with the main line of the Northern Counties—now the Midland Railway—the capital required for this work, amounting to £4,759, being subscribed privately by the Harbour Railway debenture holders. Seven years ago much needed improvement and extension of the quays at Coleraine were carried out at a cost of £4,500. Altogether, a sum of over £105,000 has been expended on the Bann Navigation works, of which the Honourable the Irish Society of London contributed £43,240. The society are large property owners in Coleraine, and devote their revenue to assisting schemes of public utility in the city of Londonderry and the town of Coleraine. The remainder of the money was raised by loans secured by guarantee ratings leviable under the Act of 1879 on the town of Coleraine and portion of the county of Londonderry. Of the original mortgage debt contracted, a sum of £14,307 remains unpaid, exclusive of the debentures on the harbour railway. The major loan is being redeemed by an annuity of £1,535, and will be extinguished in about six years. The other loans are being reduced by a sinking fund of £225 set apart yearly. The repayment of this debt with interest has involved a heavy levy on the ratepayers of the town of Coleraine and the guaranteeing area. The actual assessment in any year depends on the amount of deficiency in the harbour revenue. Some years ago the rate was down to 5d in the £, but this year, owing to reduced income caused by the war and other adverse circumstances, the levy is 1s 5½d in the £, and threatens to be even higher next year. Though the expenditure has been large, the navigation enterprise has been quite a success. Whereas the harbour revenue in 1881 was only £280, it had risen in 1914 to £2,518. The tonnage cleared at

Chairman—continued.

the port in 1881 was 6,554, and this had increased to 71,125 in 1914. The borrowing powers of the Harbour Commission are exhausted, and, owing to war taxation, the resources of the Hon. the Irish Society, who have so generously supported the Board in the past, are reduced so that there is no prospect of any further aid from that source in the near future. The stone moles constructed on the other side of the river entrance in the years 1880-1883 on the whole served their purpose of removing the sand bar at the mouth of the river. The outer or seaward ends of these moles have, however, gradually subsided, and for a length of about 400 feet (one-sixth of the whole length) they are no longer effective for the purpose for which they were laid down, and the consequence is that the mouth of the river is not protected from the seas sweeping across, and, moreover, the scouring power of the river is seriously reduced by reason of not being concentrated at the seaward ends of the moles. The Harbour Commission are, therefore, faced with the problem of raising the moles to their original level, and, if possible, extending them somewhat farther seaward. Until this is done the shifting sand, which is present in large quantities will cause occasional shoals, which seriously hamper and endanger the entrance of ships. The Board obtained from Messrs. Coode, Son and Matthews, the eminent engineers of London, a report on the subject, dated 22nd December, 1910, in which they recommended the raising of the level of the east mole to a uniform height of six feet above high-water mark, and the west mole also, if funds are procurable, the estimate at that date being £21,000 and £11,000 respectively. It is in order to carry out this vital and necessary work of raising the level of the east mole (the west mole to stand for the present) that the Commissioners submit an application for Government assistance. They wish to point out that the port of Coleraine is the natural centre for the import and export traffic of a wide district, and it is of the utmost importance that the navigation of the Bann should be maintained in the fullest degree of efficiency. The importance attached to the harbour is shown by the enterprise of the people of Coleraine in voluntarily undertaking such heavy financial burdens in order to carry out the projects already referred to. Not a penny of State aid has hitherto been asked or received. Coleraine Harbour is well equipped with facilities for the rapid loading and unloading of vessels. There has been a tendency in recent years to concentrate traffic in the larger ports and crush out the smaller ones, thus not only causing competition on the railways, but also throwing heavy additional transport costs on the people of such districts as Coleraine. As the traffic returns show, the port has been extensively used during the last 35 years

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Mr. HENRY.

[Continued.]

Chairman—continued.

for the export of agricultural produce, and to retain this and other traffic it is essential that the moles should at least be restored to their original height without delay.

Chairman.

2995 What draught of water have you got?—Vessels drawing up to 15 feet can be accommodated, but, as a rule, 11-13 feet is the draught. At spring tide there is a rise of about 6 feet.

2997 Where do you lighten in case you have to lighten?—There is no lightening.

2998. Your moles are 800 yards long?—Yes, about that.

2999. What water had you before you had the moles?—About 3 feet.

3000 You have no idea of getting more water than 15 feet?—Well, that all depends on the ability to carry out the improvements. We believe that if the East Mole was raised, to the height suggested by Sir John Coode, that the depth of water at the entrance would be very much improved.

3001. What about your railway communication?—We have a railway right on to the harbour.

3002. On to the quays?—Yes. We have two steam cranes.

3003. Are they movable cranes?—Yes, they move on the rails.

3004. What do you generally bring in here?—Our largest individual item would be coal. In normal times we had a general traffic. We had a regular cross-channel traffic between Glasgow and Coleraine of general merchandise.

3005. What did you ship out?—Chiefly agricultural produce.

3006. Cattle?—Yes, but not recently. When the Laird Line was running regularly there was a cattle trade.

3007. You had to bring in all your coal from the other side?—Yes.

Colonel Gifford.

3008. Is there any other class of vessel coming here besides Cross-Channel steamers?—No. Some years ago we had occasional cargoes of timber from America and Norway, and also petroleum, but the recent tendency has been to lugport to the larger harbours, especially in regard to oil and timber.

3009. There is no sailing vessel trade now?—No. There was a large traffic to different British ports.

Mr. Hanson.

3010. Your definite proposition is that the East Mole is defective, and that the efficiency of the harbour depends on the efficiency of the mole?—Yes.

3011. And that in order to put the mole in proper condition you want a grant of £21,000 from the State, the local rating power being exhausted?—Yes.

Mr. Field.

3012. Have you a dredger here?—No.

3013. And therefore you are unable to dredge that portion of the river which constitutes an obstacle to the vessels?—Dredging would not be a satisfactory remedy, because of the exposed position of the harbour entrance. If you dredge to-day it might be filled up again. Our difficulty is the sand.

3014. You want to utilise the scouring power of the river to act as a dredger?—Yes.

3015. From what do you derive your revenue?—Shipping dues and rates on goods.

3016. Are they half-and-half?—The rates on goods are the largest proportion of our revenue.

3017. You said that the traffic was being diverted from smaller ports like Coleraine to larger ports?—Yes, that is the tendency.

3018. Is that because there are superior facilities for loading and unloading at the larger ports, and that the vessels are detained for a shorter time?—No, not

Mr. Field—continued.

in our case, because Coleraine has a reputation for quickness of handling traffic.

3019. How many steamers have you coming into the port at the present time?—At the present time the whole traffic is upset. In ordinary peace times we would have between 300 and 400 vessels in the year—about 30 a month.

3020. Where do they go to generally?—To a great many of the Cross-Channel ports. We had a regular service to Glasgow.

3021. Had you any import of grain?—No; we were exporters of grain.

3022. Was that the principal export?—No; our principal export of agricultural produce was potatoes.

3023. Across the Channel?—Yes.

3024. With regard to live stock, had you a considerable export of live stock from this port?—Yes, we had.

3025. Can you give us any idea of the number?—I cannot say without referring to the books.

3026. Is that export continued now?—No. The Laird Line sailings are suspended temporarily during the war. A great many of their boats were commandeered, and they had to curtail their services, and, as a result, Coleraine suffered.

3027. The live stock trade has gone to other ports?—Yes, to Londonderry or Belfast.

3028. You received no financial assistance from the Government or any other source except the Irish Society?—That is so.

3029. And this is the first application to the Government?—Yes.

3030. Your borrowing powers are exhausted?—They are.

3031. And you are not in a position to meet expenses of this kind?—No.

Mr. Hudson.

3032. I gather from your evidence that the railway facilities to your port were quite adequate provided you had the necessary port arrangements?—Yes.

3033. You said that the competition of large ports with smaller ones has a tendency to congestion upon the railways, which would hinder smaller traders getting an opportunity?—Yes.

3034. Does that affect you here?—Yes, very much. I know that last winter we had to import coal by Belfast and Larne. We had difficulties in getting direct shipments, and we had the greatest difficulty in getting railway transport for it.

3035. Is that owing to being unable to get vessels late your port here?—Yes.

3036. Chiefly on account of the entrance?—It is partly the difficulty of obtaining shipping being to war conditions. The reason was that we are situated to the west of Rathlin Sound, and there are difficulties in carrying on traffic from the Sound, and the shipowners prefer another route.

3037. In normal times that did not affect you seriously?—No.

Mr. Lindsay.

3038. In your evidence you have told us that so many thousands have been spent on the navigation?—Yes. Altogether a sum of over £305,000 has been expended on the Bann Navigation works.

3039. Your Commissioners are responsible up to the lock?—No, their jurisdiction runs from the cuts to the sea.

3040. What is the draught of the river?—About 12 feet of low water.

3041. I gather that what you want is a grant, not a loan?—Yes. We have no borrowing power, and, as I have mentioned, there is a heavy enough levy on the ratepayers at the present time, and will be for some years.

Colonel Gifford.

3042. Is there any considerable traffic in the upper reaches of the river into Coleraine Harbour?—No. Mr. Leach, the Secretary of the Lower Bann Navigation Trustees, is here, and will give particulars of that.

Mr. HUGH T. BAKER, D.L., M.P., Chairman, Coleraine Harbour Commissioners, called in; and Examined.

Chairman.

3043. Mr. Baker, you are Chairman of the Coleraine Harbour Commissioners?—Yes.

Chairman—continued.

3044. Do you desire to confirm the facts as set forth in the statement submitted to us by your Secretary?—

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Mr. BARRIE

[Continued]

Chairman—continued.

I do. And I would like to add that the effects of the war have been disastrous to our finances, and unless some help can be obtained from the Government the Harbour Commissioners feel that they are not justified in asking the township to make further sacrifices to maintain the Navigation Works for which they have already done so much. The Harbour Commissioners had been in hopes of retaining our gross revenue until our major loan was cleared off, six years hence, but owing to the shrinkage of our revenue from the 1914 level of £2518 to £2015 for the financial year ending 31st March last, the deficiency sitting of the township has become so onerous that it is impossible to think of increasing it. We hope that the Sub-Committee will take the view that a community which, during the last 40 years, has done so much for itself and for the districts which it serves, has a very special claim for any Government help which can be given. The abnormal circumstances which have brought about the present financial crisis could not have been foreseen by the Harbour Commissioners, and they are not such as they can reasonably hope will rapidly pass. I would like to emphasise the point that we have never asked for any Government assistance. These works have been initiated and carried out by a former generation of Coleraine merchants who have done much to make our town and district as prosperous as you can see it is. We had hoped that we might have gone on for those six years and then have faced this work that we have referred to. The depth of water which we have at the present time at the entrance to the river is no doubt against us, and all the other difficulties set forth by the Secretary have brought about the position that we find ourselves in to-day. We are most anxious to maintain the harbour in full efficiency, and I personally—I hope I am speaking without prejudice when I say so—really don't know any case of a harbour where a little Government help would be so valuable as it would be to us at this particular time. We cannot possibly tax the town any higher. We have raised the rates from 5d. to 1s. 6d. in the £, and if we try to go any further we would be only crippling the township. We are anxious to avoid that, if at all possible. Reference was made to our cattle shipments. The Laird Line formerly came twice a week to Coleraine. They had very large and valuable boats drawing 12 feet of water, fully loaded, but owing to the subsidence at the sea-end of the Male we find ourselves losing a few inches per annum in the depth of water, and thus lessened the margin of safety in trading. The result was that the Laird Company did not feel justified in continuing to send their valuable steamers here, but maintained the service with what you would call a good coaster class without provision for cattle carrying, and so our cattle trade has disappeared. If we had the depth of water available 10 years ago, I have no doubt that, when the war is over, we should have the Laird Line back here. We have business communications with Glasgow and the whole West Coast. Our produce found its way as far down as Southampton. You know how important it is to be able to load a steamer with 500 tons at a time instead of 200 tons. We don't want to lengthen our statement any further than is absolutely necessary. Mr. Andrew Clarke, the Vice-Chairman of our Harbour Board, will make a short statement to you.

Chairman.

3035 You are personally aware that our Committee on Inland Transport is not a Government Committee. It is set up by the House of Commons, and all our Sub-Committee can do is to report to our Main Committee, and they, of course, will report to Parliament?—I understand.

3036 I presume the Coleraine Harbour Commissioners have made an application to the Government?—We have made no application to the Government for any assistance. This is the first time we have ever addressed ourselves to them.

Mr. Field.

3037 Would it not be a good thing if you made an application to the Government, and it would assist

Mr. Field—continued.

as in any recommendation we might make?—If you prefer it, there would be no objection.

3038 I am only making a suggestion?—The circumstances are altogether exceptional in our case. Last year was the first year that we found our trade shrinking so alarmingly. I should like to say something when Mr. Clarke has been examined.

[Subsequently Mr. Barrie was further questioned by the members of the Sub-Committee.]

Mr. RANNEY.

3039 This is the centre, Mr. Barrie, of one of the most intensely cultivated agricultural districts in Ireland?—Yes.

3040 I think it is true to say that the agricultural produce in this part of the North of Ireland is, acre for acre, probably higher than in any other part of Ireland?—It is as good, anyhow.

3041 And the marketing of that produce would be promoted by the development of this port?—Yes.

3042 From the point of view of the development of the port and the opening up of the country, do you think that increased facilities at your port would react favourably on the whole of the surrounding country?—Certainly.

Mr. Lindsay.

3043 I was accused to-day in Derry, not directly, that as a Belfast man I was prejudiced against small ports?—We would not suspect you of that.

3044 Did not the steamship "Fern" take passengers from Coleraine?—Yes, the service carried thousands of passengers for many years to the West of Scotland. These people have now to go through Derry or Belfast.

3045 And that would be quite an inconvenience to them?—Yes.

Mr. Hudson.

3046 You are quite of opinion, if assistance was given and the port was improved, that that would not only help you to get back to your old position, but you would have a growing trade—your general produce and imports would be generally a growing volume?—Yes. I affirm what has been said as to the high standard of cultivation reached every year in this district. That involves other sources of revenue to the Harbour Board. The chemical manure industry has grown more than 5 per cent. per annum, and as bags are being exhausted coal is more than ever becoming a source of revenue. We are anxious to maintain what the previous generation did so much to build up.

3047 And to make it better?—Yes, it would naturally get better. At present we are only aiming at maintaining it.

Mr. Field.

3048 You are of opinion that, owing to the effects of the Department of Agriculture, the produce of this country in regard to food has increased greatly?—Undoubtedly.

3049 And, from an Imperial point of view, it would be useful to send that food to England?—Yes.

3049 And therefore, I take it, this improvement in your port is absolutely necessary not only in the interests of Ireland but of Great Britain?—We think so. If we localise it again in regard to the farmers, before the war we used to have large consignments bringing in coal and loading potatoes out to South Wales for freight of 6s. or 7s. a ton. That same cargo of potatoes has now to be rolled into Belfast for shipment there at a cost of something more than 8s. per ton for railway transport alone. The farmer has to cart the goods across Belfast and then pay a higher freight than formerly.

3050 The rate, owing to want of facilities, is more than double in the case of potatoes?—Yes.

3051 I understand that Coleraine was one of the largest exporting ports for potatoes in Ireland?—Excluding Belfast, I think it came next.

3052 That is very important.

Mr. Keating.

3053 Is it a fact that, owing to the discontinuance of boats to South Wales direct and thereby enabling you

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Mr. BARRIE

[Continued.]

Mr. Keating—continued.

you to get a return cargo of coal, the price of the potatoes has decreased and you are deprived of the coal?—Yes. There is a decrease in the shipment of potatoes and the coal import has decreased, and the

Mr. Keating—continued.

community has to pay the penalty. There is such a famine of coal in this district that the township had to abandon the public lighting this week and for the coming winter.

Mr. ANDREW CLARKE, J.P., Vice-Chairman of the Coleraine Harbour Commissioners, called in; and Examined.

(Chairman.)

3064 You are Vice-Chairman of the Coleraine Harbour Commissioners, Mr. Clarke?—Yes.

3065 Do you desire to confirm the statements made by Mr. Henry and Mr. Barrie?—Yes.

3066 And you wish to add something?—Yes. The mules at the river entrance have reached hard bottom, and, as we are advised, will not sink deeper, so that further stone deposited for the purpose of raising their level will be a permanent job. If the navigation is not continued efficiently, apart from the question of increased rating assessments on the town and district rising from revenue not being sufficient to pay harbour loans, there would be the much greater cost of freight on merchandise arriving in Coleraine via other ports, and also the increased outlay on all produce, etc., being sent away by rail. Prior to the deepening of the river our coal supply was carried in small sailing vessels of light draft which, owing to changed circumstances, have ceased to be; so that if we are unable to maintain a sufficient depth of water to permit of steamers of the present burthen making use of the port, we have no redress, but must bring our coal, via Belfast, per rail at an extra cost of freight of from 5s. to 7s. per ton. In addition to coal traffic we have had a good regular trade by regular cross-Channel steamers, by which the whole of the community greatly benefited in purchase prices of ordinary goods and in cheap rates to cross-Channel ports for cattle, grain, milled stuffs, etc. By the facilities we have been able to give for shipment of general goods, Coleraine has become one of the leading centres in Ireland for export of farm produce, in so much that the leading Ulster produce firms have gone to great expense in building depots here so as to be able to collect their traffic close to their ports of shipment. We are not asking for a subsidy to have trade created for us. We have made and held this trade for many years, and are now anxious not to lose it, through circumstances beyond our local control.

3067 Do you consider that this improvement would be worth £1,000 a year to the port?—I think so.

3068 If you could make the improvement for £21,000 it would be only £1,000 a year?—We have not any funds.

3069 You would get a loan?—Our borrowing powers are exhausted.

3070 There might be some arrangement made?—I don't know.

Mr. BARRIE, M.P. The real effect of our adopting your proposal, Mr. Chairman, would be to ask the township to guarantee £1,000 per annum on the top of the heavy rate which we have to strike this year—an additional rate of another 1s. in the £. That would be impossible.

Colonel J. J. CLARK, M.L., Chairman of the Londonderry County Council, called in; and Examined.

(Chairman.)

3070. You will give us some evidence?—I have been away for some time, and I have not been looking into this matter as I should like to. I had no idea that the Committee could come along here so quickly. I am afraid I cannot give you any very accurate information. There is a very fertile stretch of land from Lough Neagh to the mouth of the Burn. If there was a drawbridge at Coleraine you would be able to bring the whole of that area into direct cross-Channel communication with England and Scotland. Owing to the lack of this communication the people around Lough Neagh do not get the benefit that they would otherwise derive from a cross-Channel traffic. In connection with the cattle trade, I would like to say that we are most anxious that the trade should be increased, and that

Chairman—continued.

there should be help given to the Lower Burn Trustees. There is no doubt that the fact of keeping cattle lying about and leaving them in lairs at night is a very serious matter. If the Lower Burn Trustees had facilities for the cross-Channel shipping of cattle, not only would it be a benefit to the whole district I have referred to, but you would find that the cattle would be delivered in England in better condition than if they had to go around by Belfast. Our Secretary prepared a statement which he submitted to you, and which I heartily endorse.

3071 How do these cattle go now?—They go around by Belfast. A few go by Larne, but the great bulk go by Belfast.

3072 You

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Mr. LEECH.

[Continued.]

H. W. LEECH, Secretary, Lower Bann Navigation Trustees, called in; and Examined.

Chairman.

3072 You have heard the evidence that has been given?—Yes. There was not much time to prepare a statement. Our superintendent, who would be very useful here, is unfortunately in England at present, but we have our foreman, who will be able to give you any information I cannot supply. I may state that the Lower Bann Navigation extends from Lough Neagh to the Bridge of Coleraine. Its length (exclusive of about 20 miles in Lough Neagh) is a little over 32 miles. It also includes the part of Lough Neagh in the counties of Antrim and Londonderry. The River Bann is a tidal river from the Cuts about 1½ miles above Coleraine. It connects the Port of Coleraine with the ramifications of the Upper Bann Navigation. The navigation works of the whole district of Lough Neagh, in the counties of Antrim, Derry, Anagh, Tyrone and Down, were originally undertaken and completed in connection with drainage works under the authority of several Statutes. By an Act of 19 and 30 Vic., Cap. 62 (1866), "to provide for maintenance of navigations made in connection with drainage, and to make further provision in relation to works of drainage in Ireland," the navigation in the district of Lough Neagh was divided into the Upper Bann Navigation and the Lower Bann Navigation, and the Lower Bann Navigation was vested in the trustees (directly incorporated as "The Lower Bann Navigation Trustees") for the use of the counties, baronies and townlands chargeable under an award to be made by the Commissioners of Public Works, with the obligation of maintaining the navigation works. By the award of the Commissioners of Public Works, "In relation to navigation undertaken in connection with drainage in the district of Lough Neagh," made on 12th February, 1859, it was found that the total amount which had been expended upon the Upper and Lower Bann Navigation amounted to £104,874 10s. 4d., and the Commissioners awarded that the sum of £37,137 12s. was the portion to be charged upon the counties, baronies and townlands benefited thereby, as specified in Schedule A to the award, and payable in the proportions therein mentioned, of which £9,210 2s. was to be levied and repaid by instalments off the lands benefited by the Upper Bann Navigation and £27,927 8s. off the lands benefited by the Lower Bann Navigation; and they awarded that the remainder of the amount expended upon the navigations should be deemed to be a free grant, and the Commissioners further awarded that the expense of the maintenance and conservancy of such works was to be borne by the same lands and in the same proportions as set out in reference to the said sum of £37,137 12s. The method of raising the money for cost of maintenance is prescribed by the Statute, and the County Councils of the counties of Antrim and Londonderry are bound to present and levy from time to time the estimated amount of six months' expenditure in advance, as furnished by the trustees. Were it not for the railway systems at each side of the river, the navigation would no doubt be considered essential for goods traffic, but for many years the railway competition practically absorbed the whole traffic of the country. The trustees nevertheless were under the necessity of maintaining the navigation and the works connected therewith, including the great weir at Toome and the other weirs, wharves, locks, bridges, &c. Latterly there has been a considerable improvement in traffic receipts. For the period of 10 years ending 31st December, 1907, the annual receipts from tolls averaged about £41. In the next five years they had risen to £63. In the last five years to nearly £132, and the receipts from the same source for the first six months of this year amounted to almost £150. The increase of traffic represented by these receipts is to be attributed (a) to the demand which has arisen for the export of Balmuccie clay, which can be obtained in large quantities in different places along the course of the river, and in which several manufacturing companies are doing a good trade; and (b) to the large increase in railway rates, which has an increasing tendency to divert traffic to the Navigation. One of the principal duties of the trustees is the dredging of the Navigation Channel. Pressing demands are frequently made upon them from different parts of the Navigation at the same time and dissatisfaction is caused by their being unable to

Chairman—continued.

comply. The trustees are under the disadvantage that their present dredger, which was bought in 1883, is now practically obsolete. Having regard to the present rate of wages, it is important that dredging should be carried out economically and that all machinery should be up to date. A new dredger would now cost probably £5,000 at least. Unfortunately, the trustees have not any borrowing powers, and if they were to estimate for a sufficient additional sum in any half-year to enable them to purchase such a dredger there would be an outcry against the increase of rates which would be necessary for the raising of the amount. On the other hand, dredging under present conditions is uneconomical and wasteful and injurious to the growing traffic and the interests of the agricultural districts along the river, in which there is a tendency to take advantage of the Navigation for the conveyance of farm produce. At present the traffic is virtually confined to the upper half of the river, but it is reasonable to expect that if the trustees were in a position to dredge economically and efficiently for the whole length of the navigation channel there would not only be an increase of traffic at the upper end, but considerable traffic might be developed from Coleraine and other places at the northern end. It is therefore most desirable that the trustees should be in a position to provide a modern dredger for use upon the navigation, and as they have no funds available for the purpose it is respectfully submitted that it would be in the public interest that your Sub-Committee should recommend that a grant of a sufficient sum shall be made for this purpose.

3073 Who owns the largest?—They belong to the by-traders and to companies such as the Inland Navigation Company.

3074 You simply take the tolls?—Yes.

3075 What is the size of the largest?—I do not know exactly. The locks are 130 by 20 feet and are a uniform length.

3076 How much water on the sill?—Seven feet. Six or 8 feet is the minimum depth along the channel.

3077 Have you a uniform depth of 6 or 8 feet of water?—Yes.

3078 You have no bridges except this one bridge here?—We have four bridges.

3079 Are they swing bridges?—Yes.

3080 What can you get underneath these bridges?—I don't know. I forget how many feet. I think it is 7 feet clear at ordinary high tide at Coleraine.

Mr. Barris, (M.P.) Cliffs can carry 100 tons.

Mr. Field.

3081 Can you tell me, Mr. Leech, if your locks are all in good condition?—I think so, except sometimes the gates require repairing. I think they are all practically in good working order.

3082 The only thing that is militating against your navigation is practically the want of dredging?—Yes.

3083 That is the most serious obstruction?—Yes.

3084 If you had a swing bridge here you would increase your traffic?—If we had the channel properly dredged I believe it would.

3085 What is the reason there is such a difference between the Upper and Lower Bann?—Well, I cannot very well speak for the Upper Bann.

3086 You are of opinion that in view of the fact that the railway runs alongside the river you would be able to successfully compete with them for agricultural produce?—I think there is good reason to think so. There is certainly a growing tendency on the part of farmers to send agricultural produce by water, instead of rail, that did not exist previously.

Mr. Hudson.

3087 Can you tell me whether a number of the large owners have had their barges laid up for want of trade?—I presume they wait elsewhere.

3088 These are now laid up in the district that you know of?—No. They don't belong to this end. They all belong to the other district.

3089 You could not tell us the number of people that ply on the canal?—No. But our foreman has a wonderful knowledge of the river, and I think he may be

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Mr. LEECH.

[Continued.]

Mr. Hanson—continued.

be able to give you that information, or perhaps Mr. Grant could tell you.

Mr. Francis Grant, J.P., of the Lower Bann Navigation [About nine barges.]

Mr. Lindsay.

3090. You said, Mr. Leech, at the beginning of your evidence that the Lower Bann Navigation extended from Lough Neagh to the bridge at Coleraine, but the Harbour Commissioners told us that they were responsible up to the lock?—We claim jurisdiction to Coleraine, but it makes no difference, as there does not appear to be any traffic between the two points. Our last work of any consequence was the weirs and the cut of the locks just above the falls.

3091. Do you make any distinction between the river and the lough as to toll?—Lately we are not getting anything from the lough. The traffic was very low, and request was made to us by the Inland Navigation Company to take off the toll, that it might lead to increased traffic, and that was done temporarily.

3092. You get no tolls?—None from the lough.

3093. You are not asking for a grant?—No.

Colonel Giffen.

3094. How is the revenue of your company made up?—Whatever we get is expended on the maintenance of the works. In addition to that we have to have a levy of a considerable sum every half year. Our main revenue is derived from rates in the nature of County Dues.

3095. The amount of tolls and dues are small?—Yes.

3096. Is there any other sort of revenue?—A trifling thing like a rent.

3097. To what points do the canal boats chiefly trade?—From Portlengone and also from places between Portlengone and New Ferry, where several private wharves are being built, and then New Ferry is a great place. There are now wharves erected by the United Kingdom Post Office Company, Ltd. Trade goes from that up to Belfast. I understand that a very large agricultural company or two is taking land on the very borders of the river near Portlengone.

3098. Have the trustees ever been carriers on the canal?—No. We have no right to do that.

3099. You have no power?—No.

Mr. HUGH T. BARRIE, D.L., M.P., Trustee, Lower Bann Navigation, called in; and Examined.

Chairman.

3111. You are one of the Lower Bann Navigation trustees?—Yes.

3112. And you support the evidence submitted by Mr. Leech, secretary to the trustees?—Yes. I would like to mention that the policy of the trustees in recent years has been to endeavour to develop traffic by offering every possible facility for it to those interested, while at the same time keeping the deficiency rate at as low level as is consistent with a reasonable maintenance of the works. During the past two years the traffic has substantially improved, and if the trustees were to receive the relatively small grant which will provide a modern dredger, they are prepared to embark on considerable outlay in order to get the present minimum depth of six feet substantially increased. I would like to point out that the maintenance of the navigation on this important river is a national question. The question asked by Mr. Hanson is a perfectly proper question to ask: "Is this all the return for £104,000 of public money spent on it in the past?" But we live in the present, and I hope we will live in the future, and the development of the motor has brought about a revolution. Immediately the motor became a commercial asset you have it exploited here and developed. We have only a revenue of about £350. We promise to have fully £300 this year. It does seem to me that, after the war, this trade is going to stay with us—this development of direct shipment by quick motor-boats across Lough Neagh and into Belfast. It is a matter that has come to stay because they can compete successfully with the railway. There was no possibility of that until the last year or two. Then, again, we have on friendly terms with the railways. We have two railways on both sides of the river, efficient railways. Up to the time the motor came along it was 0.778.

Colonel Giffen—continued.

3100. You are in the position of collector of dues to the County Council and are responsible for the maintenance of the canal?—Yes, and the weirs and upkeep of the navigation generally.

Mr. Hanson.

3101. Do I understand you to say that you don't want any assistance at all?—We only want a dredger.

3102. I thought that there was a hint that you wanted something?—A dredger.

3103. What is the amount you have in your fund?—A suggestion was made of £3,000, but we think it is below the mark. The former dredger cost between £2,000 and £3,000. If we do not get the full amount of £5,000 we might levy the balance.

Mr. Field.

3104. Can you levy it at all?—Yes.

Mr. Hanson.

3105. Is it a fact that £104,000 of public money has been spent on this navigation?—£207,000 was Government money, and in addition there were local contributions invested in developing the navigation, and so far the result has not justified that outlay?—Yes.

3106. And your proposition to improve the Bann Navigation is that more public money be spent upon it?—A small sum.

3107. Would the expenditure of that small sum give a return for the amount of money already invested?—I don't say it would make it self-supporting, but it would tend to increase the traffic receipts.

3108. The tendency of farmers, you say, is to use the river more than previously?—Yes.

3109. Our recommendation would be largely affected by the national value attached to your scheme, and the definite fact is that £104,000 has been already expended on the development of the Bann and, in your opinion, it would be well if a small further sum were expended to make it efficient?—Yes.

Chairman.

3110. Do you believe that the Navigation could be deepened still further?—I am afraid not, but I speak without any definite knowledge.

Chairman—continued.

impossible to compete with them. As regards our putting on boats of our own, all that is possible now, and it is a suggestion that the trustees would like to consider. What has probably prevented earlier enterprise was that unfortunate clause in the Railway and Canal Traffic Act which precluded private enterprise. We all know the history of it. We used to have steamers between Londonderry and Coleraine and Belfast and Dublin. What happened? The railway companies lowered their rates so that the poor steamship owner was wiped out. I think, if I read the times aright, that is going to be a thing of the past. I don't see why now, under new conditions, we should not have very important developments. We cannot go to the farmers and say, "We want £5,000 for a new dredger." If we had that dredger we could increase the depth of the navigation, and every six inches you increase the depth you double the size of the vessel that you employ. That is what we are looking for. As regards the Lower Bann from the lock to Coleraine, I confess at once that there has not been the enterprise that I should like to have seen there. But under new conditions that will be different. If we get the river entrance made at all stages of the tide, you would have that development at the river. In a small way, I don't know of any money that could be more usefully spent and prove more directly beneficial to agriculture over a wide area, than this improvement which we desire to make. If we had a substantial development on the river I don't think you would find the people of Coleraine hostile to the reconstruction of the bridge which cost £40,000.

Mr. Lindsay.

3113. Who owns it?—The County Council. I think I may say on behalf of the people of Coleraine that

they

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Mr. BARRIE

[Continued.]

Mr. Lindsay—continued.

they would not stand in the way of internal development.

3114. Never in history has there been any trading done to Coleraine?—Pardon me. Sixty or 70 years ago there was a trading vessel from Scotland went up the river from Coleraine.

3115. That was before railway days?—Yes.

3116. Nothing has been done for all these years?—That is so.

Mr. FRANCIS GRANGE, J.P., TOWN, TRUSTEE, LOWER BARR NAVIGATION, called in; and Examined.

Chairman.

3117. You are a trustee, Mr. GRANGE, of the Lower Barr Navigation?—Yes, sir.

3118. You desire to make a statement?—Yes. The Lower Barr was opened for traffic in 1859. It has been maintained since, first by a demand on the old Grand Juries of Antrim and Derry, who had a right to appoint the trustees. This duty now falls on the different County Councils. The yearly demand of late has been about £500 from each council, sometimes considerably exceeded for special works. Owing to the want of traffic the trustees have allowed the river to get out of order to some extent; they did not consider it fair to the ratepayers to ask for money to keep the river at the depth that was originally given them, when the traffic did not warrant it. The river has got silted up. Now the traffic is improving owing to a peculiar clay which has been found along the banks of the river between Toome and Kilrea. This clay, being a non-conductor of heat and cold, is used largely for covering boilers and high-heat pressure bricks, also in the manufacture of dynamite, &c. Five companies are now working this deposit and also peat. As there is a plentiful supply of the latter, a big future lies before the peat industry. A patent fertiliser called "Rito" is manufactured from the peat. Four motor lighters are now plying on the river between Toome and Portlough, and sometimes they go right through Lough Neagh to Belfast. There is also a big agricultural district on each side of the river, and, as no railway accommodation is convenient, the farmers suffer considerably less in time and labour in getting their produce to the market. The trustees have to listen to complaints of lighters grounding owing to insufficient depth of water. The Navigation only wants putting in order to make it one of the finest waterways in Ireland. If such were done, I am of opinion that instead of being a loss to the ratepayers of Antrim and Derry it would be worked at a profit. The different lighters will probably be converted into motor lighters in the near future. I am quite sure that, after the war, a great impetus would be given to the traffic on this river if it were put into proper condition to meet the coming trade; and the surrounding districts would greatly benefit by the increased trade between Toome and Coleraine. If the River Barr was put in order, we could ship coal from Belfast to the different towns along the banks of the river up to Toome, and if we can get them we can tap Lough Neagh, and trade with the various places along its banks. I have ascertained from the harbour master at Toome that the tonnage on which tolls were paid at that station in 1915 to 21st September was 804 tons, and that in 1918 up to the same date, 21st September, it was 14,275 tons.

Mr. JAMES LAW, Farmer, Grange House, Toomebridge, Co. Antrim, representing farmers in Newerry (Lower Barr) district, Examined.

Chairman.

3119. You are a farmer, I understand?—Yes, and I represent some of my neighbours. I have here the following memorial signed by the farmers living in the neighbourhood of Newerry.—"We, the undersigned farmers of the counties of Antrim and Derry, in the neighbourhood of Newerry (the land of which is not suitable for grazing purposes, therefore is solely agricultural), are placed at a very great disadvantage through not having a reasonable means of getting our farm produce delivered. Though we have a waterway at our doors (the River Barr), we have no means of utilizing it. Seeing that a Committee has been appointed to see that the waterway should be utilized

Mr. Lindsay—continued.

3117. One would rather like to find out if there is a reasonable prospect of re-opening the river?—I would think so.

Mr. Field.

3118. You are of opinion, Mr. BARRIE, that if the improvements are carried out, as suggested, there would be a development?—I think the position is most promising just now.

Chairman—continued.

3121. You heard the evidence that was given here to-day?—Yes.

3122. Do you agree with it?—I don't agree altogether with Mr. Leach's evidence so far as the cost of dredging is concerned. He only puts the figure at £5,000. That would be altogether insufficient to put the river into proper condition.

3123. How much would you say?—£20,000, I should say. I include the dredging. The river is out of order altogether.

3124. Would it not be a very great benefit to the farmers if it were put into proper condition?—Yes. They could market their goods better.

3125. So it would pay them to do it?—It would—at least, it would be a great benefit to them.

Mr. Lindsay.

3126. You know the river for a long time?—Yes.
3127. How long is it in the condition you describe?—20 or 27 years.

3128. Do you know the maximum draft of lighters in the Lagan Navigation?—Six feet.

3129. Is it 5 ft. on the Barr?—No, sir, we have got more than 5 ft. on the Barr?—No, sir, we have not.

3130. These motor lighters go down to some distance below Toome?—Yes.

3131. How much do they draw?—About 5 ft. fully loaded. There have been great complaints about the Lower Barr; boats often stick at certain places.

3132. Is it quite a new thing to me to hear of a shortage of water on the Barr?—It is a fine river.

3133. There is not much wrong with it?—No.

3134. You don't know the end of the Barr well?—No.

3135. Portlough is 9 miles from Toome?—Yes.

3136. And nearly 30 miles across the lough?—Yes.

3137. And 30 miles down the Lagan to Belfast?—Yes.

3138. Did you say some of the barges went through to Belfast?—Yes, but sometimes the storm in Lough Neagh prevents them.

3139. These lighters have not tried to go down to Coleraine?—No.

Mr. Field.

3140. Would there be any chance of getting any money from the farmers, if they would benefit by the Navigation so much, to carry out the improvements?—I don't think so. We get rates from them.

3141. You would be able to raise the rates so that you would have a better chance of repaying the money?—I don't think so, sir.

Chairman—continued.

to the advantage and for the use of the public, we believe we have a strong claim on any grant that may be made. We have motor lighters passing our farms daily, and all we require is that the old navigation be put in order and that two small jetties be erected, one on each side of the Barr at Newerry. We could then load our farm produce at above place and have it delivered directly to the market. Thus the railway traffic would be diminished, and a great deal of time and labour would be saved, as the farmers have to cart their produce to the railway station, a distance which varies from five to ten miles, according to which station the farmer has to deliver his produce to."

3143. Have

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MR. LAW.

[Continued.]

Chairman—continued.

3343. Have you any idea of the amount of tonnage that you could supply in that locality?—I could hardly say. We have been sending up to possibly a thousand tons a year to different centres in various ways—sometimes by small boats on the Eamh. There was a lady who put up a fixture some years ago in the river, but in winter it was surrounded by water, when we wanted it most. I am sure we send out up to a thousand tons a year.

3344. How are you off for quays?—We have none at all. I may say we experience some difficulties in getting lighters; there are so many companies that utilise them all the time.

Mr. Lindsay.

3345. That is a matter that the Trustees can see to?—If the river was put in proper order the farmers would get a lighter of their own.

3346. You would send the farm produce to Belfast?—Yes.

3347. You only want a wharf?—Yes, one for each side. 3348. Would not the farmers co-operate in building a wharf? It would not cost a great deal of money?—Well, it would not. The Trustees could take land by paying for it, and the farmers could not. We would find a difficulty there.

Chairman. I wish to thank the witnesses for the information they have given us.

(The Sitting then concluded.)

NINETEENTH PUBLIC SITTING: TUESDAY, 24TH SEPTEMBER, 1918.

At the CITY HALL, BELFAST, at 4 p.m.

MEMBERS PRESENT:

Mr. Wilson-Fox, M.P., Chairman Select Committee.
Colonel John Greillon, M.P.
Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.
Mr. Matthew Keating, M.P.
Mr. Walter Hadden, M.P.
Mr. P. J. Hanson.

Mr. PHILIP MACINTYRE, Secretary.

Sir ARTHUR SHIRLEY RENN, M.P., IN THE CHAIR.

Chairman. I shall explain why our Sub-Committee is here. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a Sub-Committee, of which we

are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have visited a number of ports, and we have now come to Belfast. I understand there are some representatives here from Ballycastle who wish to make some statements. I shall be glad to hear them. I would, however, ask them to kindly remember the limits of our Reference.

Statement by Mr. T. M. GREER, Solicitor, representing Antrim County Council, Ballycastle Rural District Council, and Ballycastle Traders.

Mr. Greer. I appear for the Antrim County Council, the Rural District Council of Ballycastle and the leading merchants of the town of Ballycastle, to bring before you the claims of the town and district for the provision of suitable harbour accommodation, in the interests of the development of the place. I should, perhaps, at the outset, apologise for the absence of the Chairman of the Piers and Harbour Committee of the County Council, who took the matter up and made arrangements for this deputation to appear before your Committee. He intended to be here, but there was no train by which he could come, and so he had not to give evidence himself, perhaps you will forgive his absence. I propose in a few words to tell you why we wish to have this accommodation in Ballycastle, and to examine three, or at the most, four witnesses who can be corroborated by a number of others, but I do not think that they may be considered necessary. For many years there has been a strong feeling in the neighbourhood of Ballycastle that the development of that part of the County Antrim as being retarded owing to the want of proper harbour accommodation, and, as this is the third application which has been made in recent years, I hope we will be successful this time. The last deputation that we appeared before was the Department of Agriculture. Sir Thomas Russell came to Ballycastle and inspected the place and was quite satisfied that a harbour should be built there. In point of fact, he and the County Council joined forces and made a pier on the Island of Rathlin, which is a short distance to the north of Ballycastle, with the intention that, as soon as that pier was completed, a harbour should be constructed at Ballycastle; but, unfortunately, the

war broke out and nothing was then done. We wish at present to impress on your Committee the reasons why the scheme that was formulated by the Department of Agriculture for Ballycastle should be carried out without delay.

Chairman. You quite understand that this is not a Government Committee. It is appointed by the House of Commons, and all we can do is to make a recommendation.

Mr. Greer. I quite understand that. Ballycastle is situated at the north-west end of the county and to the east of Portrush and the Giant's Causeway. To the east of the town of Ballycastle there is a district which is very rich in minerals within a distance of some four or five miles. There are large deposits of coal, iron, silica, and valuable clay which can be hardly touched at all owing to the difficulties of transit. The only means of sea transport, at the present time, is by little boats, which are not sufficient. There is a private pier, built by a private individual for his own purpose, and of course he does not give any facilities to the public—quite the contrary. He has been bringing in some cargoes of coal himself, but even that has been given up, and nothing has been shipped for some time past. Inland there is a narrow gauge railway from Ballycastle to Ballymoney, a distance of some 16 miles, and then goods have to be taken out of the narrow gauge wagons to the broad-gauge wagons on the Midland line. There was an old harbour in Ballycastle in 1700 and there was a shipment of coal and sandstone. They were shipped to Dublin and other places and a large trade was done, but that harbour silted up and is of no use whatever. The scheme that was suggested

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Mr. GREER.

[Continued]

Statement by Mr. Greer—continued.

suggested by the Ballycastle people and approved by the Department of Agriculture proposed to adopt the modern method of putting piers into the sea and making the harbour somewhat in the same position as the old harbour. The estimated cost of that was £4,000, of which it was arranged the County Council would contribute £750. The County Council passed a resolution agreeing to contribute that sum. It was a very great blow to the district when they discovered that the Department were not able to proceed with the scheme. I propose to examine Mr. Woodside, representative of the Ballycastle division on the Antrim County Council since 1900; Mr. Hugh McAlister, general merchant, Ballycastle, who will give you some idea of the traffic of the district, and the difficulties of dealing with it; Mr. Hunter, representing the estate office, Ballycastle, who will tell you about the mineral resources of the place; and Mr. Sharpe, a buyer of agricultural produce, who will let you know what a great benefit the harbour accommodation would be to the agricultural interests of the community.

Chairman.

3149 I understand, Mr. Greer, that the Department of Agriculture have investigated this matter?—They have.

3150 I don't quite see, if they have got it in hand, what we can do?—They say they cannot go on with it now.

3151 Why?—Because they have no funds. They applied to the Treasury. I will just read for you the following letter from the Department of Agriculture to the secretary of the County Council:—

Department of Agriculture, etc.
(Fisheries Branch),
5, Kildare Place, Dublin,
5th January, 1918.

6311/14 P.B.
Sir,

With reference to previous correspondence on the subject of the improvement of the harbour of Ballycastle, I have to transmit herewith, for the information of the Antrim County Council, plans, specifications, and estimates, which have been prepared by the Department's engineer. The Department regret that it is not possible for them to state the date on which the works in question, if approved of by the council, could be put in hand, in view of the fact that, under existing financial conditions, they are not at present in a position to realise the necessary sum.

Mr. R. P. WOODSIDE, Representative of the Ballycastle Division of the Antrim County Council, called in; and Examined.

Chairman.

3152 I understand, Mr. Woodside, you have represented Ballycastle on the Antrim County Council since 1900?—Yes.

3153 And you wish to give us some information with regard to Rathlin Island?—Yes, and Ballycastle Port. A small pier was made on the island, and at the time it was constructed it was intended to be part of a scheme which also included the building of the harbour in Ballycastle. That was Sir Thomas Russell's statement. The population of Rathlin is about 350 to 400, length, 7 miles, 1 broad; industries, farming, cattle and sheep; and all crops except flax; fishing, good fishing ground all round the island, but fishing is limited in extent. Not equal to what would be carried on if fishermen were assured of getting a landing on mainland to market their fish. The kelp-burning industry was formerly very profitable. Of late years it has fallen into decay owing to low price and difficulty in getting kelp shipped locally. The price is now better, but the kelp has to be boated to Glenamoy or Ballycastle for shipment. A quarry of limestone is worked by a Scotch firm, and all the stone shipped from a small private pier, situated about two miles west of Church Bay at the foot of the cliffs. All goods for the island are taken by small boat from Ballycastle. The farm produce and cattle of this island are taken in small boats to Ballycastle for sale. There is no post in the island, no doctor or chemist; the Ballycastle doctor attends when required, if he can cross. It has one public-house and two or three small shops.

Chairman—continued.

Under the special circumstances, application for financial assistance has been made by the Department to the Development Commissioners, but without success—I am, etc., etc.,

(Signed) T. F. GILL,
Secretary.

The Secretary,
Antrim County Council,
County Courthouse, Belfast.

3154 Now we propose to back up the Department by giving reasons why your Committee should report to the House of Commons that it would be desirable to incur the slight expenditure that would be necessary to make this harbour at Ballycastle. That is really the object with which we came here to-day.

Chairman.

3155 You said, Mr. Greer, that the neighbourhood of Ballycastle is rich in minerals?—Yes.

3156 Are they being worked?—Coal is being worked.

3157 You said that they brought in cargoes of coal?—The coal is only being developed. I have one of the members of the Ballycastle Colliery Company here who will give evidence. I think the output is some 50 tons per week. It is a very good quality of coal. The Midland Railway Company state that they will take as much of it as can be supplied. The manager of the Colliery Company will tell you the difficulties they have in connection with transport. We have no doubt that, if the collieries could be developed a little more, there would be a considerable traffic to Belfast and other places by sea if we had the harbour accommodation.

3158 You have a narrow-gauge railway?—It would never be satisfactory to send it by rail because there is a narrow gauge and the goods would have to be transferred into a broad gauge.

3159 Could not a third rail be put down?—I don't know about that. I am not an engineer. It has not been done in other places in the county. Since the war started there has been no coal brought by ship into Ballycastle at all, and with very great difficulty it is brought by Belfast and Coleraine.

3160 How did they bring it before?—By little boats. It was unloaded into lighters and brought to the wharves at Ballycastle.

3161 Is there a safe anchorage there?—Yes, I think so. It is a sandy bottom. I shall now call Mr. Woodside.

Division of the Antrim County Council, called in; and Examined.

Chairman—continued.

In normal times there are no police or coastguard. There is a Protestant church, a Roman Catholic church, and a National school. The island is owned by the sons and grandsons of the late Lieutenant-Colonel Gage—none of whom lives there permanently. Distance from Fair Head, on mainland, to Rye Point, on island, 2½ miles. Nearest ports, Ballycastle Port to Church Bay, Rathlin, 7 miles. Ballycastle Port is suitable for small boats only, which have to be drawn up on the shore. A new pier in Church Bay gives safety for a motor-boat in moderate weather. One motor-boat went ashore when riding at anchor last winter during a storm. In fine weather a motor-boat makes the passage in one hour. The time taken by sailing boat depends on tides and wind. In rough weather the passage is impossible for small boats. A cove of the island meets in the channel forming a dangerous sea race now called "Slough-no-moors," known in ancient times as "Cove Breacan," in which no small boat could live. The passage is made in fine weather at the slack of the tide. Prior to 1900 there was a small stone slip for fishing boats to come alongside in Church Bay. Application was made about 10 or 12 years ago by the Ballycastle people and the islanders to the Department of Agriculture (Fisheries Branch) and the County Council for safe accommodation for boats at Church Bay and Ballycastle Port. The island was visited many times by the representatives of the Department, to ascertain the best situation for a pier in Church Bay. On the occasion of the last voyage of the "Hela"

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Mr. WOODSIDE.

[Continued.]

Chairman—continued.

"Hells" (the Department's ship) to the island, with the vice-president on board, a steamer got up, before leaving, and the ship had to make for Londonderry before a landing could be effected on the mainland. The Department sanctioned a scheme for the construction of a pier on the west side of Church Bay, Rathlin, and this was finished about 1935. The county surveyor can give evidence as to cost, depth of water, etc. A steam trawler was able to come alongside when the pier was built. Improvements were at the same time made to the boat pier on the east side of Church Bay. When the scheme for the new pier on the west side of Church Bay, Rathlin, was projected, it was the intention of the Department and the County Council to construct a pier in harbour at Ballycastle Port. Various plans were submitted by the Department, to some of which objections were raised by the owners of a private pier in Ballycastle Bay, which is to the west side of Ballycastle Port. It was believed that a small harbour could be made at the port by utilising the "hewn" stones of an old harbour made in the middle of the eighteenth century at Ballycastle by money given by the Irish Government of the day to a Mr. Boyd at a cost of about £20,000. The remains of the east breakwater of this harbour are standing—the west breakwater has disappeared—the stones of the old pier are buried in the sand, and the harbour is completely filled up. This harbour, in its day, served for the export of coal and other minerals, and for the products of the breweries, distilleries, and linen works then established in Ballycastle. In 1763 it appears to have silted up with sand, the primitive arrangement for scouring the basin having failed. If the outer portion of this old harbour were cleared and a new west breakwater built, good depth could be had for coastal steamers. The county surveyor can give soundings, etc. The County Council have improved the landing place for small boats at Ballycastle Port, but, except at high tide, there is no water for a motor-boat to come alongside, and no safety for boats to ride. The entrance to this small boat port soon silts up, and causes a dangerous break of the sea at its entrance.

3162. What is the amount of staff that you export from Ballycastle?—There is a merchant from Ballycastle present who will give you evidence on that—Mr. McArthur. I don't know it myself. He will give you the figures. All I give you is the work done by the County Council and the statement made by the Department of Agriculture. The people of Rathlin

Chairman—continued.

Island bring all their produce in small boats to Ballycastle. They have a safe port on the island, but none on the mainland. When the new pier in Rathlin was built, Sir Thomas Russell and that it was only half the work, and that it was the intention to complete it by building a pier at Ballycastle. There was some difficulty about the plan, and when one was approved the war broke out, and money was not forthcoming. The Ballycastle people ask that part of the old harbour which was built in the middle of the eighteenth century by the Irish Government should be rebuilt. The history of the old harbour will be found in the Journals of the Irish House of Commons, which set out the cost, etc. There was a thriving trade in shipping done at that time. The arrangement for scouring it was banking a small stream and letting it flood into the harbour. This was not effective, and the industry of the place decayed, and for 100 years nothing was done in the way of shipping, except by barges from ships anchored in the bay. If the old harbour were cleared of sand and the stones of the old pier used, a very efficient harbour could be made.

3163. I really don't think this comes within our reference. You said you had a narrow gauge railway. You don't consider it sufficient. The Department has stated that they think there ought to be a harbour in Ballycastle. We cannot do anything more than to say that we hope the Department will get the money to get the work done.—They say they have no money.

3164. We have got no money. We can only recommend. I don't think that we can go into this matter.

Mr. Greer.] If you consider the case on its merits, surely it would be in its favour if it turned out that the Department took a favourable view of the scheme.

Chairman.] You are a lawyer, Mr. Greer. Are you prepared to call Ballycastle a port?

Mr. Greer.] Certainly I think it is. I have the map, and I think it will satisfy you.

Chairman.] Our reference limits us to facilities in connection with the ports and canals of Ireland.

Mr. Greer.] I am prepared to give evidence that merchants of Ballycastle get ships to come from Scotland and England which they have unloaded into lighters.

Chairman.] I am afraid that it does not come within our reference. We will be very glad to hear evidence as to what the experts are.

Mr. HUGH A. McALISTER, General Merchant, Ballycastle, called in; and Examined.

Chairman.

3165. You are a merchant residing in Ballycastle?—Yes.

3166. And you desire to give us some evidence regarding the trade of the district?—Yes. Ballycastle had, as far back as 1730, the foundations laid of a harbour. At this time there were only 52 inhabitants in the town, and inside 30 years the place had prospered to a great extent, so that there were 60 vessels, owned by the residents, occupied in carrying coal principally to Dublin. Gallienas were going on extensively. Glass, soap and iron works were established, and breweries were working. The Irish Parliament from time to time advanced up to £80,000 towards the harbour construction and upkeep. After the death of Hugh Boyd, the owner of the place, the harbour was allowed to go into a state of ruin, and in recent years the then owner had it filled up with sand, portion of it being now a tennis court. About 30 years ago, Mr. McDowell built a pier and purchased a steamer of 150 tons. I took over the management of the pier for him and continued to manage it for about 18 years. The trade upwards consisted chiefly of coal, and outwards of sand, gravel, paving sets, kelp, limestone, etc. The trade increased until over 35,000 tons of goods were landed in the year. Of this amount two to three thousand tons of coal were put on rail for distribution to Ballymoney and the intermediate stations. Being privately owned, no other vessel was permitted to call at the pier without the consent of the owner, which was seldom granted owing to his having his own vessel. About 1909 his interest was formed into a private company, he being chairman of

Chairman—continued.

direction, when the desire of the company seemed to be to take over the merchants' trade as well as the trade of carriers, with the result that local merchants who were using the pier by permission could not make contracts with safety as they were liable to be stopped at any time. In my own case I was taking in 2,500-2,600 tons of coal yearly, and owing to the shipping company wishing to become coal importers themselves, the harbour rates were raised, from time to time, until they became so high it was impossible to continue; and then the steamer was refused to the Ballycastle merchants altogether. Mr. McKinley, another merchant, can corroborate this. The result was, I had to bring all my coal for two and a half years to Coleraine Harbour and thence by rail to Ballycastle, an additional distance of three hours by sea and 25 miles by rail. Owing to the colliery standing in with me I was able to do so. After the war started they lost their steamer, and since then the pier is closed down, so that we are shut out from any facility whatever by sea. When the Department of Agriculture were arranging to spend some money in 1912 on harbour accommodation the Ballycastle Shipping Company put obstacles in the way, and suggested that portion of the money should be paid to them to improve their pier, but made it a sine qua non that, if any other harbour were constructed it would not be used for a commercial harbour and that no local body should be allowed to interfere. In other words, the Department was to spend the money and no one to have control over the works when finished but the local shipping company. (See their letter to Mr. Greer, Solicitor to County Council,

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Mr. McALISTER

[Continued.]

Chairman—continued.

Council, a copy of which I can get in). We brought the matter under the notice of Sir T. W. Russell, and asked him to send someone to interview the people other than the shipping company; that he did, and we were promised harbour facilities, but the war intervened before anything could be done. A large trade could be done which was never touched to any extent—that is, in the shipping of farm produce. The local landholder has provided increased accommodation in the markets for handling and storing farm produce, with the result that last season several thousand tons of this was sent away by rail. If proper harbour accommodation was provided, open to the public, a large benefit would accrue to the agricultural interest in an extensive district. The collieries are now being worked and, as a result, harbour facilities are required. But no satisfactory trade can be carried on under present arrangements, as no contracts can be made and no produce guaranteed for delivery at a specified time as we are in the hands of a private concern and at their mercy as to rates, carrying agreements, etc. Ballycastle has increased in recent years, and of the war was over, building will go on again, as the building leases are on liberal terms, and the accommodation is taxed to its utmost. With regard to the fishing industry, Ballycastle was the market for the Island of Bally, and in August each year two or three thousand pounds of dried fish were disposed of. The boats come here and the fish booted in in smaller craft to the shore. Later they have got poor accommodation at Bally, where a steamer calls and takes them to other markets, which would, I have no doubt, come here as of old if we had an open harbour. Ballycastle is only six hours by sea to the Ayrshire ports—12 hours to Glasgow, while Portrush is two hours more, and Coleraine three. For shipping cattle alone this would mean a considerable saving. There is no shelter harbour nearer than Larne on the east and Portrush on the west for fishing trawlers, etc., to run to when in this channel—Larne being about 40 miles and Portrush about 30 miles distant.

Mr. Greer.

3167. I understand, Mr. McAlister, that for 18 years you were manager of the pier which is owned by Mr. McQuinn, a private gentleman in Ballycastle?—Yes.

3168. Will you tell the Committee what the average traffic was per year?—I took out statistics for four years, and it increased from 10,000 to 25,000.

Chairman.

3169. Your exports consisted of sand, gravel, limestone and square cutts?—Yes.

Mr. JOHN HENCKS (Messrs. Hencks, Arton and Kerr), Ballycastle Colliery Company, called in; and Examined.

Chairman.

3178. You are a member of the firm of Messrs. Hencks, Arton and Kerr?—I am managing director.

3179. When was the company formed?—In May, 1917.

3180. Have you got a good seam of coal?—Yes. We are the proprietors of the Ballycastle minerals, which extend for practically 10,000 acres. We have only been developing there since we started in May, 1917. We have got to the point at which we are producing. Our output is rather small at present, but we are going on. Our colliery is situated right along the coastward. We have about five miles of sea front. The centre of our colliery is situated two miles from the terminus of the narrow-gauge railway and, on the seaboard, there is a very suitable place for constructing a harbour. The old harbour, which was built in 1736 by the previous coal owners, could, in my opinion, be reconstructed, or there could be a suitable harbour put there which would suit for the development of the coal mines in the locality. What is very plain to us is that the pier which is at Ballycastle at the present moment could never be utilized for the purpose of transporting minerals. The pier itself forms only a gangway right up to where the ships come. There is no storage, and if you put coal down there it would be depreciated, and so no use when it reached its destination.

3181. How many tons do you produce?—Just now we produce 100 tons per week, but we are opening up another section of our colliery, and we have still over

Chairman—continued.

3179. What about cattle?—There were no facilities for shipping cattle at all. The pier is so constructed that you could not send cattle. It is about 14 feet above the water level.

3181. What because of the cattle?—They had to go to other markets.

3182. Sent by the narrow gauge?—Yes. Any person who bought them in Ballycastle had to take them by the narrow gauge if they wanted to ship them to the English or Scotch ports, and they shipped them from Belfast or Coleraine. There are no facilities for shipping cattle at the pier.

3183. I think we understand very fully now that there are not the facilities at Ballycastle that there ought to be, and we know that the Department of Agriculture has the matter of harbour improvement in hand. We will bring the matter before our Mun. Committee?—This is a private owned pier at Ballycastle and the public have no right to it except at the wish of the owner, and it is closed now altogether since the war started.

Mr. Greer.] Would you allow me to give evidence of one witness as to the mineral resources of the district?

Chairman.] We cannot deal with them under our reference.

Mr. Field.

3174. There was something said about the difficulty, Mr. McAlister, of getting live stock from Rathlin?—Yes. The live stock from Rathlin has to come to Ballycastle. They have to be driven out at the little pier at Rathlin and thrown, tied, and landed into the boats and brought to Ballycastle and they have to be brought ashore. Sir Thomas Russell said that the means of transport from Rathlin to Ballycastle was a bit of civilization.

3175. The live stock have to go to Coleraine?—Anything that is sold in the district for shipment has either to go to Coleraine or to Belfast.

3176. And, in your view, that has handicapped the live stock industry of the whole area?—Yes, because if we had facilities for shipping live stock at Ballycastle it would take in an area of 30 miles or more. We are within six hours of Ayrshire ports, 18 hours from Glasgow, and about 15 from Liverpool. The nearest shipping ports for cattle from Ballycastle is Larne on the one side and Coleraine on the other.

3177. In your view it is most important that the live stock industry of Ballycastle should be made available for transport?—Yes, it is a most important matter.

Chairman.] If there are any minerals being worked in the district we would like to hear about them.

Mr. Greer.] I will ask Mr. Hencks, who is connected with the colliery company.

Chairman—continued.

4,800 acres, which has been proved to contain coal, to be opened. We propose to develop the colliery as far as it is capable of being developed. We have had larger schemes in view, but the want of proper transport facilities really is the stumbling block on other people coming in to help us on larger schemes. We have seams of coal of a quality equal to the best Ayrshire coal. We have supplied 150 tons to the Northern Counties Committee, and they are well satisfied with its quality. The engineer described it as very satisfactory, and Mr. Malin is quite prepared to verify that statement. We have always been encouraged by different bodies in Ireland that we would get a pier at Ballycastle. Mr. Duke, the late Chief Secretary, promised to support a scheme if developments proved satisfactory. The development of Ballycastle is restricted to the carrying capacity of the narrow-gauge railway, which is incapable of dealing with very much more traffic than it has at present. Lastly it was suggested in dealing with the agricultural produce of the district, we must so that for five days on end we could not get wagons down the line to supply our requirements. Our coals were dumped down on the platform waiting for the wagons to arrive. These are conditions which would not encourage any company to go on unless they had sufficient capital to make a pier for themselves or to build a railway and to make it a broad gauge. We have three workable seams of coal. We have first a seam of cannel coal, which by analysis

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[Continued.]

Chairman—continued.

gives gas, tar, etc. 44.17 per cent; sulphur, 93; fixed carbon, 51.95, and ash, 3.92. This coal has been taken up by Sir Beverton Redwood, the great mineral expert, who states that it is of exceptional quality. Commercially, unless for distillation purposes, it is no good. It is no good as house coal, because the ash is too large, but for distillation purposes it is considered to be very valuable. We have at present an inquiry regarding it, and we had a syndicate from London inquiring about this one some a year ago. The result was that we had to break down the negotiations for the exploiting of this coal principally for want of transport. We were not prepared to make a line of railway or even a temporary line to connect with the narrow gauge, and then the possibilities of the narrow gauge were not equal to getting out a supply of 80 tons a day the London people wanted, and consequently the whole thing fell through. This poor which is proposed is just a rail and a quarry from the centre of our colliery. If this were constructed we could dispose of this cannel coal to Belfast, London, or any other place. Cannel coal is in the near future going to have a great value. The Ministry of Munitions have been very anxious to get cannel coal, and they have to turn their back on our property owing to the want of facilities of transport. Unless they had it dabbled on the ground it would be impossible for them to deal with our coal and handle it in London or elsewhere. At present it costs more to take our coal from Ballycastle to Belfast than it would cost to take coal from Ayrshire to New York. That is actually the position we are in. Of this cannel coal, we are estimated to have our 15,000,000 tons. "Hawk's Nest" coal seam is our second seam of workable coal. We have got 15,147,000 tons available. It is a steam and house coal.

Mr. Keating.

3182. Who estimated the 15,000,000 tons?—Mr. Eldor, a mining engineer from Scotland, who was employed on behalf of the promoters of a scheme, supported by Sir Beverton Redwood, in 1913, with a capital of £1,000,000. Sir Beverton Redwood is head of the Petroleum Research Committee, Ministry of Munitions. Then there is the third seam of workable coal—our main coal seam, nearly 20 million tons are available, making a total of 40,000,000 tons visible in sight. This is in an area of 5,600 acres out of our 21,000 acres.

3183. There is no doubt about it that you have got plenty of coal?—Yes.

Chairman.

3184. Supposing you had a harbour there, how would you get the coal down to it?—The County Council are favourable to allowing us to construct a railroad to the harbour.

3185. You would do that?—Yes.

3186. What size vessel would you expect to get?—500 tons.

Colonel Greville.

3187. If you got the coal to the harbour you would get it direct into a 500-ton vessel?—Yes.

3188. You would want a pier with sufficient depth of water for that vessel?—Yes, there are any amount of sites suitable along our colliery line.

Mr. Hudson.

3189. With regard to the three seams of coal, have you any house coal?—Yes.

3190. You mention two kinds—one of cannel and one of steam?—Yes.

3191. And your steam coal has been tested by the Northern Counties Committee?—Yes.

3192. And proved very satisfactory?—Yes.

3193. Then you have another seam—as that house coal?—Yes; the Northern Counties Committee are using it for steam purposes. It is both steam and a house coal.

3194. What depth?—Our total depth is about 100 ft. vertical.

3195. You are satisfied that the narrow-gauge railway will not suit the requirements of future developments?—It will not.

3196. Or even present-day requirements?—No, supposing the narrow-gauge offered facilities to deal with the coal, it means that the coal would have to be

Mr. Hudson—continued.

hauled again and transhipped on to the broad gauge. That means a great expense to transport the coal.

3197. Does not your explanation suggest rather something else—that some of your coal is soft?—Yes, there is a good portion of it soft.

3198. Mr. H. H. Fox-Fair? Are the estimates you have given practically made on these holes?—Yes.

3199. How much coal have you in sight?—40,000,000 tons. What we have in sight at the present moment on this one seam, not to talk about the workings into the interior, would enable us, we estimate, to put out 200 tons a day for 15 years of our best quality of coal, which is 4 ft. thick.

3200. What is your capital?—We have spent £3,000 at present. Our original capital was £6,000, and we are spending money beyond our capital.

3201. So you are not in a position to carry out any extra work without receiving more capital?—No, and the great difficulty is the want of these proper facilities. The material is there. The office has been stated by the experts from the Ministry of Munitions to be the best in Great Britain; yet they can take it cheaper from Norway.

Mr. Hansen.

3202. This harbour could be useful for general purposes of commerce as well as for your coal, if constructed?—Yes.

3203. Do you regard this Ballycastle Colliery of yours as of national importance?—Yes.

3204. Or is it a purely local matter?—All coal production at the present moment is of national importance.

3205. Do you, as a business man engaged in developing coal mines, think that the possibilities of Ballycastle would warrant a public expenditure on this point?—Yes.

Mr. Lindsay.

3206. What proportion of your coal do you estimate as house coal?—Two-thirds.

3207. I suppose you get more for the house coal than for the steam coal?—Yes.

3208. You don't want to send your coal from this proposed harbour to Belfast, and have it put into wagons there. You would rather have it shipped direct from Ballycastle?—Yes.

3209. Don't you think that in the near future the narrow-gauge line will have to be widened or a third rail put down?—It would be a great thing to have a broad gauge.

3210. I suggest to you that you should think of the desirability of railway communication as well as a harbour?—Decidedly. If we had the same facilities in Ballycastle as what the coal-owners have in Scotland and in England, both in regard to railways and sea transport, any colliery would not have been standing idle for the last 60 years as it has been doing. The place would have been practically worked out.

3211. You should take advantage of your geographical position?—Yes. I have no doubt that the Midland Railway, if they were satisfied that great developments would take place, might extend the broad gauge.

3212. The Midland Railway do not own the line from Ballycastle to Ballymoney?—I think you might say they do.

Mr. Field.

3213. Is it your opinion that the want of facilities for transport has prevented the development of the coal mines in Ballycastle?—It is well known to be the case.

3214. If you had a railway with a broad gauge it would enable you to send coal direct?—Yes.

3215. How many men have you employed?—Altogether about 20 men.

3216. Only 20 men?—Yes.

3217. Do you consider that this would be a paying proposition if properly developed?—Yes. I have sunk my last penny in it, and I think that is the best test of any man's faith in a concern.

3218. It is your opinion that if these facilities were provided, sufficient capital would be forthcoming to enable you to carry on these collieries successfully?—Undoubtedly. It may interest you to know that in 1738, when, like the present time, there was a scarcity of coal both in Belfast and Dublin, the Irish House of Commons

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[Continued.]

Mr. Field—continued.

Commons submitted the Ballycastle coalfields, and Ballycastle coal was shipped through to Dublin and sold at 18s. a ton. Thousands and thousands of tons were sent into Dublin.

3219 You look upon this as a national proposition?—I would say so.

Mr. Keating.

3220 The volume of canal coal is very great up there?—Yes.

3221 Have you any idea of the proportion of mineral oil that could be extracted from canal coal?—We consider we have between 40 and 50 gallons a ton, from an analysis which was made for us by Tatlock and Thompson, analytical chemists, Glasgow, for our own purposes. Sir Bowdoin Redwood, some five or six years ago, was interested in this property, and he recommended to the London Syndicate that this property was worth exploiting. They were raising a million of money, and would have gone through only for the war.

3222 What year was that?—1913-14.

3223 You are aware, of course, that the Government are making very great efforts to get native mineral oil in all parts of the Empire?—Well, we see a good deal in the papers as to their anxiety about that.

3224 And you assert here in Ballycastle that you can get 40 or 50 gallons a ton?—Yes.

3225 Do you think it would require much capital to get the canal coal out immediately?—We have one man standing open just now.

3226 How many tons per week could you get out?—Within six months we could put out at least 1,000 tons of canal coal a week.

3227 With an average of 40 gallons of mineral oil from each ton?—Yes.

3228 You have stated in your evidence that you would be prepared to build a railway yourself if the

Mr. Keating—continued.

port were improved?—I don't think we could undertake that unless we floated into a bigger concern.

3229 You are of opinion that there would be no difficulty in getting enough of capital to develop the coal mines if the proper transport facilities were available?—That is so.

3230 And it would follow if it was a paying concern you would build the railway yourself?—Yes, if we had a pier to make a railway to.

3231 With regard to the iron stone—that is iron ore?—No.

3232 What is the value of that?—The ore is of a very pure quality, giving 61 per cent. percentage of iron. That proves that the ironstone is a commercial matter. Messrs. Merry and Cunningham made the only serious attempt to work the ironstone, to supply their blast furnaces in Scotland. They worked that colliery between 1854 and 1870. They stopped work when their lease expired. They were unable to get it renewed on the original terms.

3233 You think that by creating facilities at the port that you would get more canal coal for mineral oil and also ironstone which is very necessary for the nation?—Decidedly.

3234 Have you got an estimate in your own mind as to what it will cost to create these facilities at the port?—It would all depend on the position that was chosen for the port.

3235 Would you be willing to give that matter your consideration and get an estimate?—I would like you to remember that to make a colliery port would be very much cheaper than to make a port for general purposes, but the colliery port would not be so convenient for the accommodation of the general public.

Chairman.] We will report to our Main Committee about this matter.

Mr. Greer.] Will you hear Mr. Hunter?

Chairman.] Yes.

Mr. ARTHUR HUNTER, Managing Clerk of the Estate Office, Ballycastle, called in; and Examined.

Chairman.

3236 You wish to give us some evidence, Mr. Hunter?—Yes, Sir Arthur. I would like to say that if there were harbour accommodation it would develop Ballycastle generally. I should like you to know that at present the agricultural industry cannot be served by the railway alone, and we have evidence to show that. There has been a great development in the agricultural and, take, for instance, the export of potatoes. We have evidence that last year about 3,000 tons of potatoes were exported, and that this amount could easily be doubled if there had been proper facilities. But I particularly wish to bring before you the serious handicap that the mineral reserves of this district are suffering from for lack of harbour accommodation. I am well acquainted with the mineral resources of the district. The principal minerals area is situate to the east of Ballycastle. It extends from Ballycastle to Fair Head, a distance of about five miles along the sea coast, and from the sea coast, in a southerly direction, to a distance of three miles inland. It contains an area of over 8,000 acres. Whether minerals are to be found on the extreme southern or inland boundary I do not know. Several experts have disagreed about this, and boring only can settle the point. Mr. B. Elder, M.E., M.I.M.E., estimates that 8,500 acres of the field contains coal. A whinstone dyke cuts the field in two. It runs in an easterly direction from the Doone (half a mile east of Ballycastle) to Fair Head. It has been alleged that, for instance, coal was not to be found south of this dyke. That theory has been disproved by two borings put down this year by the Ministry of Munitions. One of these, within a mile of the Fair Head, or eastern boundary, found canal coal at a depth of 230 ft., while the other, at the extreme western boundary, proved a household seam and a small canal seam at a depth of about 90 ft. Inside the total area coal (bituminous and canal), iron (principally black-band), silica, gneiss, and slates have been found. There are four known seams of coal—"Hook's Nest," "Mum," "Wee," and canal. Anthracite, it is believed, is to be found under Fair Head. The geological survey of Ireland carried out a new survey, extending over three months, towards the end of last year and a

Chairman—continued.

month this year. The full report is not yet available, but a map of the new survey could be obtained on application to the Director of the Geological Survey of Ireland. It has been computed by the Geological Surveyor that about 120 acres of main coal is situated in part of the area north of the whinstone dyke. At the moderate computation there would be about 500,000 tons available, estimated on the basis of a 3 ft. 6 in. seam, and exclusive of whatever reserves the field south of the great gaw or whinstone dyke may contain. There might, indeed, be over 1,000,000 tons, but borings are necessary to prove the full extent of coal in this northern area. A mile and a half east of Ballycastle a seam of the main coal is being worked and developed at the moment by Messrs. Heckie, Aitken and Kerr. The seam is 4 ft. thick and is a good household coal. The average weekly output is about 60 tons, and the price obtained is £3 10s. per ton at the pit mouth. The market is local, except for "nets," which are sold to the Midland Railway Company at Belfast. I understand a further development of the output of coal is in contemplation. Messrs. Heckie, Aitken and Kerr are employing Messrs. Kyle of Glasgow, to bore the area adjacent to their mine by a hand drill, and household coal has been found, at shallow depths, in three places. At Murlough the coal veins are being developed by a different company (Mr. Reid). This coal is marketed in Ballycastle. The output is under that of Messrs. Heckie, Aitken and Kerr's mine, but it is also in the process of development. In the Ballycastle minerals area there are large deposits of canal coal, for which there is no local market. Sir Bowdoin Redwood, in 1914, estimated canal reserves at 30,000,000 tons, whilst Professor Hull, in the same year, considered 14,000,000 tons a fair estimate. (Five copy extracts of their reports now handed in.) I know that many inquiries have been received by the company about the canal coal, and it is believed that the development of this class of coal is greatly hampered by lack of transport by sea. In fact, the development to any great extent of the coal reserves depends upon harbour facilities. There is a keen market for all classes of coals, particularly in manufacturing towns. To export the coal

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Mr. HUNTER.

[Continued]

Chairman—continued.

by rail from Ballycastle accounts for too much handling. In the first place, it would have to be loaded at Ballycastle, then re-loaded from narrow-gauge trucks to the broad gauge at Ballymore, and again re-loaded at Belfast or Coleraine Docks. Iron: Many seams of ironstone outcrop in Coleraine Bay (roughly, about three miles from Ballycastle). Iron was mined here in 1864 by Messrs. Merry and Cunningham and exported. There is an iron field of about 1,000 acres. One analysis, the only one I know of, states that the ironstone yields 81 per cent. peroxide of iron. These mines were worked from the outcrop on the sea coast inland, and the output shipped from a jetty now useless, practically at the mine mouth. Silica: I beg leave to hand in a copy of a report and analysis by Dr. Roscombe,* and expert, made at the direction of the Mineral Resources Department of the Ministry of Munitions. Dr. Roscombe refers to the possibility of these deposits being worked at that date (1907) by Messrs. Heekin, Aston and Kerr and the British Silica and Minerals Company. Negotiations were then in progress at that date, but did not materialise, and transport facilities were largely a deciding factor in the decisions of the companies to abandon the project. In the past the silica supplies have been largely imported from Norway. That Norwegian supplies could be competed with, if the Ballycastle silica could be exported to Great Britain by sea, is the expressed opinion of Mr. Elder, M.R., M.L.M.E. A feature of the Ballycastle silica is the very low percentage of P & O. (iron). At the moment there is a firm quite prepared to take the silica if transport facilities by sea were available. There is a deposit of galena at Ballyvee (three miles from Ballycastle). I do not

Chairman—continued.

know whether it is in economic quantities or not. There are good clays (fireclay and ordinary) to be obtained at Ballyvee. I have seen thousands of good samples of building brick, also samples of glazed sewer and drain pipes. At Bellintoy (seven miles distant) there is a bauxite mine. The bauxite is of good quality, and I know that this mine was shut down three years ago owing to difficulty of obtaining sea transport. Less than a month ago the manager (Mr. Furness) told me he proposed to commence mining again if the military authorities would release enough men. At present there are 700 or 800 tons in stock which would have been sold if there had been any harbour accommodation. There are huge reserves of basalt, but its exportation for road-making, building and square setts has been stopped since the war began and all work postponed. Before the war the development of this trade was very seriously handicapped for lack of proper harbour accommodation, any exports being loaded by a wire ropeway and buckets, but only when the weather was favourable. Often and often three and four attempts to load were made on different days, which of course added extra cost to the working expenses. I know quantities such as these obtaining 6d. per ton royalty, and one carrying a dead rest of £100 per annum. Independent of these considerations, it is highly probable that should harbour accommodation be provided at Ballycastle, all agricultural and commercial imports and exports of the country, tapped by the Ballycastle Railway up to Ballymore, 16 miles distant inland, would be earned by seaborne transport, besides developing the growing tourist traffic for 16 miles east of Ballycastle, Ballycastle itself, and at least 16 miles west of Ballycastle.

Mr. ANDREW SHARPE, Fisheries Expert,

Ballycastle, called in; and Examined

Chairman.

3337. Can you tell the Committee the amount of potatoes exported last year from your locality?—About 3,000 tons were handled at Ballycastle.

Mr. HANSON.

3338. For export?—Over the railway; and I believe there would be 20,000 tons exported from the neighbourhood if they could be landed. We had great difficulties last year over the narrow-gauge railway. Sometimes we were nearly a week waiting for wagons.

Chairman.

3339. Do you know how many cattle were exported?—No, I don't.

3340. Could you put in a statement showing the amount of stuff exported and imported into Ballycastle last year?

Mr. GREER, Solicitor.] It is rather difficult to get that. Mr. Sharpe only represents one firm.

Witness.] We could have sent out far more potatoes if we had facilities. The narrow-gauge railway is not able to accommodate us at all.

Chairman.

3340*. Do you ship anything, Mr. Sharpe, besides the 3,000 tons of potatoes?—Some oats.

Mr. FIELD.

3341. Where do these potatoes go to?—I suppose they went for the Army, and a great many of them across to England and Scotland.

3342. You are feeding the Army from Ballycastle?—Yes.

Colonel GRETTES.

3343. Is there anyone else dealing in potatoes at Ballycastle?—Yes, sir.

Mr. D. J. OWEN, Secretary, Belfast Harbour

Commissioners, called in; and Examined

Chairman.

3354. You are Secretary of the Belfast Harbour Board?—Yes.

3355. And you have been good enough to put in a statement?—Yes. This is the statement:—

* Not handed in.

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Chairman—continued.

BELFAST HARBOUR AUTHORITY'S JURISDICTION, DUTIES AND RESPONSIBILITIES.

The Belfast Harbour is under the jurisdiction of the Belfast Harbour Commissioners, a publicly elected body,

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Mr. OWEN.

[Continued.]

CHAIRMAN—continued

body, which was constituted by the Belfast Harbour Act, 1847, and which took the place of an older body. The duties and responsibilities of the Commissioners are defined by Statutes passed at various times from 1847 to the present year, and are similar to those devolving upon other public Harbour and Dock Authorities in the United Kingdom, having regard to local conditions.

ACCOMMODATION PROVIDED BY THE COMMISSIONERS.

Under their statutory powers the Commissioners have, from time to time, constructed works to provide accommodation for the trade of the port. The following tables give particulars of the principal docks, quays, etc. In addition, considerable facilities have been provided in the way of roadways, railway lines, cranes, &c. (—)

QUAYS, WHARVES, &c.

Opened.	Name.	Depth.		Lined Quayage Feet.
		A. R. W.	O. L. W.	
1848	Canal Quay - - - -	ft. in.	ft. in.	200
1849	Dunegal Quay - - - -	24 3	15 9	2202
1874	Albert Quay - - - -	24 3	15 9	1867
1877	Queen's Quay - - - -	23 9	16 3	2157
Mingram Channel Quays—				
1893	No. 1 & 2 - - - -	32 3	23 9	800
1904	No. 3 - - - -	36 3	25 9	400
1880	Alexandra Wharf - - - -	34 3	25 9	945
1899	Clarendon Wharf - - - -	34 3	15 9	570
1886	Victoria Wharf - - - -	35 6	39 0	754
1900	Alexandra Jetty - - - -	30 3	21 9	614
1906	Thompson Wharf - - - -	40 6	32 0	600

DOCKS AND BASINS

Opened.	Name.	Width of Entrance.	Depth below Low Water.	Water Area.	Lined Quayage.
1851	Clarendon Dock - - - -	feet.	feet.	A. R. W.	feet.
1897	Aberdeen Basin - - - -	47½	9	4 0 21	2076
1879	Duffield Dock - - - -	—	12	10 3 12	1423
1872	Spencer Dock - - - -	60	—	3 1 12	1690
1872	Spencer Dock - - - -	180	15	7 1 39	1699
1872	Spencer Dock - - - -	160	11½	5 6 3	971
1897	York Dock - - - -	100	26	7 2 38	3071
—	York Branch Dock - - - -	—	8-15	2 1 18	1045
—	New Fitting-out Basin, Co. Down -	—	32	3 1 30	1140

* Non-Tidal, 33 ft. at O.H.W.

Total Lined Quayage, 23,702.

GRAVING DOCKS.

---	Width of Entrance.	Level of Sill above Datum.	Depth of Dock from Casing to Floor.	Breadth of Floor.	Length of Floor.
Clarendon, No. 1 -	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
" " 2 -	27 2	1 9	34 9	37 6	245 0
" " 3 -	33 2	Herb. Datum.	15 5	34 0	257 0
Hamilton -	63 7	Below Datum.	22 9	50 0	431 6
Alexandra -	80 0	—	31 0	50 0	899 0
Thompson -	86 0	—	42 6	100 0	850 0*

* Length of sill to be placed against outer face quoin = 836 ft. 7½ in.

HARBOUR DATUM.

Level of No. 2 Clarendon Graving Dock Sill, and 1 ft. 3½ ins. below average low water level.

ORDNANCE DATUM.

35 ft. 5 ins. below Harbour Datum.

AREA OF HARBOUR (APPROXIMATELY)

	Co. Antrim.	Co. Down.
Land - - -	137 acres.	455 acres.
Water - - -	660 "	830 "
	836 "	1,285 "

Total - 2,118 acres.

Total 49

The total amount spent by the Commissioners on capital works is, in round figures, £3,000,000.

Financial

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Mr. OWEN.

[Continued.]

Chairman—continued.

FINANCIAL.

By their Acts of Parliament, the Commissioners are authorised to borrow money by the issue of Redeemable Consolidated Stock upon the security of the revenue of the undertaking, lands, harbour, and other property vested in the Commissioners. The Stock issued up to the present has been made redeemable in 60 years. The Commissioners are obliged to maintain a sinking fund, into which, out of the harbour revenue each year, such payments are made as, with interest at 3 per cent., will accumulate a sufficient amount at the end of 60 years to pay off the borrowed money. The Commissioners also have the power to use the sinking fund moneys to purchase in the open market their own stock and extinguish it, and this power has been largely availed of, thus reducing the indebtedness of the Commissioners.

The amount borrowed by the Commissioners and the amount extinguished by the sinking fund are as under:

Total amount of borrowing powers exercised . . .	£1,863,306 2 2
Stock extinguished by Sinking Fund . . .	183,632 0 0
Loans repaid, &c. . .	132,308 12 2

Loans now outstanding in form of Consolidated Stock . . .	£1,527,465 10 0
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The actual borrowing powers of the Commissioners now stand as under:—

Total amount authorised to be borrowed . . .	£4,393,320 10 2
Borrowing powers exercised . . .	1,863,306 2 2

Balance representing unexhausted borrowing powers	£2,540,023 8 0
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REVENUE.

1914 . . . £180,574	1915 . . . £192,895
1916 . . . 192,592	1917 . . . 205,327

TRADE OF PORT.

The trade of the port may be divided into the following classes:—

- Cross-Channel and Coasting—Accommodated mostly at the Decoyal Quay.
- Coal—Mostly using the Queen's and Albert Quays.
- Foreign Trade—Mostly using the York, Dufferin and Spencer Docks.
- Shipbuilding—For which the numerous fitting-out wharves, &c., are provided.

NUMBER AND TONNAGE OF VESSELS USING THE PORT.

1914.

Cross-Channel and Coasting (including coal) . . .	8,861 vessels	3,705,085 tons.
Foreign . . .	389 "	510,534 "
Non-trading . . .	79 "	104,679 "
Total . . .	8,789 "	3,905,306 "

1917.

Cross-Channel and Coasting (including Coal) . . .	7,705 vessels	1,903,337 tons.
Foreign . . .	354 "	335,411 "
Non-trading . . .	119 "	162,487 "
Total . . .	8,068 "	2,479,335 "

GOODS IMPORTED AND EXPORTED.

1914.

Imported . . .	2,707,813 tons.
Exported . . .	752,167 "
Total . . .	3,459,980 "

1917.

Imported . . .	2,296,133 tons.
Exported . . .	652,601 "
Total . . .	2,948,734 "

Chairman—continued.

GENERAL OBSERVATIONS.

The Belfast Harbour Commissioners have never had occasion to obtain financial assistance from the Government, except one loan of £100,000 from the Commissioners of Public Works, which was made in 1854, subject to repayment at the rate of 4½ per cent. per annum by way of interest and return of capital. This was in due course fully repaid. The Commissioners had no difficulty, up to a point, in obtaining all moneys which they required to spend in improving the port from the public, mostly locally, at 3½ per cent. per annum interest. The Stock has been issued at prices ranging from a premium of 15 per cent. to a discount of 5 per cent. As a matter of fact, the old Act of Parliament regulating the finance stipulated that the Stock was not to be issued at a lower price than 95 per cent., and that each year was to bear the same rate of interest. From the year 1860 the state of the money market has been such that it has been impossible to borrow money at 3½ per cent. interest, even with the price of issue at 95, that only representing to the investor an actual return of 23 13s. 8d. per cent. Later, of course, on account of war conditions, and owing to the Government giving 5 per cent. interest, the Commissioners' terms were entirely out of the question. This year, however, the Commissioners obtained an Act of Parliament removing the restrictions as regards the minimum price of issue of Stock and allowing them a free hand as to the rate of interest, so that they have now ample power for borrowing. During the prevailing war conditions it is, of course, impossible to borrow money without the consent of the Treasury. It is considered that, as a general principle, dock and harbour undertakings should be self-supporting; in other words, that the trade using a port should pay such a revenue in the way of dues on the vessels and goods as would defray the expenses of maintaining and managing the port, including interest on capital money borrowed and the requisite sinking fund payments. With proper management there does not seem to be any reason why this should not work out satisfactorily. The experience of Belfast as well in favour of this view, as would probably be that of most other large publicly managed harbour undertakings. With a public trust there is no profit to be made, and any surplus revenue remaining after payment of all expenses is used towards the development of the port or towards the reduction of the dues. The tendency is to reduce the dues on vessels and goods as much as possible, but experience shows that the trading community of a port does not aim altogether at cheapness, but will pay higher dues if by so doing the facilities are improved. It will therefore be seen that any question of a financial grant from the Government to an individual port would only tend to improve that port to the disadvantage of another, and so create an unfair competition. Obviously, a port which managed by means of outside aid to keep its dues low might divert traffic there and disturb the natural flow of trade. This would be the result of financial assistance to a particular port. Occasionally, if grants were made by the Government to all Ports the matter would at once rest on a different basis, but innumerable difficulties would arise as to the method of apportionment. In principle it does not seem to be the duty of the general tax payer of the Kingdom to pay the direct cost of providing Port accommodation and facilities. That cost is properly payable by the vessels and goods in the form of Port Dues. This does not create any artificial barriers and consequently trade will flow through the most suitable channels, so those Ports best situated, having regard to their geographical position and the population, will develop. The cost of handling and transport will fall on the goods, and be eventually paid by the consumer. It is, however, quite conceivable that State funds might be advantageously employed in the construction and maintenance of small harbours intended for the development of industries such as fishing, which could not otherwise exist. It might also be necessary for the Government, in the national interest, to provide funds for the deepening or improving of harbours for purposes of naval and military security. A port should be fully provided with the best appliances for the quick loading and discharging of goods into and from vessels. In this connection, the remarks made

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MR. OWEN.

[Continued.]

Chairman—continued.

In the "Report of the Departmental Committee appointed by the Board of Trade to consider the position of the shipping and shipbuilding industries after the war," express very clearly the views which the Belfast Harbour Commissioners entertain, viz.:-

1. Ports should be provided with adequate railway and road facilities at the quays.

2. The principal ports should be provided with modern appliances and with labour-saving machinery of all kinds to the fullest extent necessary. There has been a great deficiency of travelling cranes, elevators, and the like.

3. There should be ample warehouse accommodation for goods, and the absence of quayside space for the storage of goods, which leads to congestion, should be prevented. With the anticipated increase of the trade of Belfast, further cranes will be required, and it is intended to provide, as soon as possible, more appliances of the most modern type. The Commissioners have also a scheme of development to be taken in hand as early as practicable, which includes the provision of a large grain silo with elevators, etc., which will greatly expedite the handling of grain imports. So far as railway lines are concerned, the Commissioners have on their estate over 3 miles of rails or footways connected with the three railway systems—the Great Northern of Ireland, the Midland, and the Belfast and County Down—thus enabling goods to be taken from any part of Ireland to be loaded into or discharged from railway wagons opposite the shed at which a ship may be berthed. The port is also the terminus of the Lagan navigation, which affords an inland waterway system of transport, but the quantity of goods using this system is not great, and this forms one aspect of the canal problem over which the Commissioners have no control. The Commissioners have this year obtained an Act of Parliament to sanction the carrying out of a large scheme of development of the port, and the borrowing of £2,500,000 in round figures. As soon as conditions are favourable this scheme will be entered upon; already a start has been made in connection with such work as is of immediate national importance.

3255. Your statement shows that you have got very full facilities for transport?—The needs of the time are continually demanding further facilities, and it is the duty of the Commissioners to keep pace with these demands, which they are doing to the best of their ability, and they will continue to do so.

3257. How do you manage for your money for the development?—Practically all the money that the Belfast Commissioners have raised for capital purposes has been borrowed from the public, in return for which we issue what we call Belfast Harbour Redeemable Consolidated Stock, which is an ordinary 60 years stock.

3258. You were limited in the amount of interest you would pay?—Yes, up to this year we were limited to an issue of stock at the price of 95 per cent., and in the rate of interest to this extent that having once decided on the rate of interest all the stock had to be issued at the same price, which is $\frac{3}{4}$ per cent.

3259. Have you found any difficulty in getting money for your development until the war?—We had a difficulty on account of the price of issue. Ten years ago I think the Boer War was the cause of stringency in the money market, and we found then we had a difficulty in borrowing money at $\frac{3}{4}$ per cent. interest on stock issued at 95. That restriction has been remedied by an Act of Parliament this year, and when money is normal I presume we can borrow like any other public body.

3260. All these great improvements have been vitally done by Belfast itself?—They have been entirely done by Belfast, with the exception of a small loan of £100,000, got many years ago from the Board of Works, but that was on interest as if we borrowed from the public.

MR. HENNES.

3261. The development of the Port of Belfast during its long and successful history has been carried out on the principle of self-help?—Yes.

MR. HENNES—continued.

3262. No money has been advanced by the State except that one £100,000 from the Board of Works?—I think that on one occasion 80 or 100 years ago the Harbour did attempt to raise £200,000 from the Board of Works, but the Board of Works turned the matter down, and the public of Belfast responded without the slightest difficulty.

3263. Can you put in some statement* to the committee showing the efficiency with which the Port of Belfast is at present being worked?—Yes.

MR. WILSON-FOX.

3264. I notice that the Commissioners have over 6 miles of rails or tramways connected with the three railway systems?—Yes.

3265. Is all the railway development carried out by the Commissioners?—We merely provide the railway lines. We provide all the facilities.

3266. You don't have to make any financial arrangement with the railway company?—No, we charge a toll of so much a ton on the goods which pass over these lines.

3267. You give, so to speak, running powers?—Yes.

COLONEL GRETTON.

3268. You have stated in the evidence you handed in that "it is considered as a general principle dock and harbour undertakings should be self-supporting." Does it follow from that in the view of the Belfast Harbour Commissioners that the State should maintain the access to the harbour?—No. Our idea is that the access to the port is part of the port undertaking.

3269. Has the Government at any time given any assistance in clearing the channels?—No.

MR. FIELD.

3270. What way is the revenue of the port derived?—The principle on which the Harbour Commissioners have always proceeded is to endeavour as far as possible to maintain an equal ratio between the revenue from goods and vessels.

3271. Has that always been the policy of the Harbour Board?—Yes. That has been more or less a guiding principle, but I don't say that the Commissioners are necessarily wedded to that policy; we have got outside that. It became disproportionate owing to war conditions, when we had to raise the dues on goods more than those on vessels.

3272. Subject to variations according to the necessities of the port and according to the capabilities of either shipping or goods to bear that increase?—Precisely.

3273. In that way you have managed to advance the harbour without any injustice to the shipping people or the merchants?—You have expressed it quite correctly.

3274. This policy has resulted in making your port one of the most successful?—Yes.

MR. LEADING.

3275. At the beginning of your evidence you say "the Belfast Harbour is under the jurisdiction of the Belfast Harbour Commissioners—a publicly elected body, which was constituted by the Belfast Harbour Act, 1847, and which took the place of an older body"—In 1847 the Belfast Harbour Commissioners were formed to succeed or to take over the functions of the "Corporation for preserving and improving the Port and Harbour of Belfast"—rather a formidable title.

3276. Have you records of that older body?—We have.

3277. That body never received any State assistance?—That body dated from 1785, and never received any State assistance.

3278. You have already mentioned that the harbour never received any financial assistance except this sum of £100,000 from the Board of Works, which was made in 1854?—Yes.

3279. That was subject to repayment at the rate of $\frac{4}{5}$ per cent per annum by way of interest and return of capital?—Yes.

* Not furnished.

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Mr. OWEN.

[Continued.]

Mr. Lindsay—continued.

3320. How much was interest out of the 4½ per cent.—3½ per cent., and the rest represented an actuarial amount, which would return the capital in 40 years.

3321. The Government got a fair return by giving the money at 3½ per cent.—Yes.

3322. You would hardly say that the Government was acting in the capacity of a fairy godmother?—No.

3323. That was the only loan that the present Harbour Commissioners ever got since they were formed?—

Mr. H. M. POLLOCK, J.P., Chairman, Belfast Harbour Commissioners, called in; and Examined.

Chairman.

3325. You are chairman of the Belfast Harbour Commissioners?—Yes. I don't know that I have anything to add to the evidence given by our secretary, who has stated very clearly our position in regard to finance. We will require very considerable developments owing to the natural extension of our trade.

3326. Have you approached the Board of Trade for power to increase your dues?—No, it has not been necessary to do so yet, and we hope it won't be necessary.

Mr. F. L. HARR, J.P., representing the Belfast Chamber of Commerce, called in; and Examined.

Chairman.

3329. You represent the Belfast Chamber of Commerce?—Yes.

3330. You are an ex-President of the Chamber?—Yes, and at present a member of the Council. I am also Chairman of the Postal and Telegraphic Committee of the Chamber; a Harbour Commissioner, and a member of the firm of G. Hoyne and Sons, who are managers of the Ulster Steamship Company, Ltd. (established in 1877), owners of the "Head" Line and "Lord" Line steamers—all vessels of large tonnage engaged in foreign trade. I am asked to attend this Commission as a representative of the Belfast Chamber of Commerce, but as I understand the Commission is primarily interested in the working of the port I will commence my evidence with my own experience regarding the working and developing of the trade of our company and their steamers. The services conducted by the steamers owned by the company, previous to the war, were as follows:—New Orleans to Belfast and Dublin, sailings about monthly; Canada to Belfast and Dublin, sailings about fortnightly; Baltimore to Belfast and Dublin, sailings about monthly; Russian-Baltic ports to Belfast, sailings about weekly; Russian-Baltic ports to Dublin, sailings about monthly. Since the outbreak of war the services from the Baltic ports have been entirely suspended, but the sailings from New Orleans and Canadian ports (Montreal, Quebec and St. John, N.B.) have been fairly well maintained—mostly to Belfast. A number of the steamers belonging to the company have been sunk by enemy submarines, and, as all British tonnage (including the vessels belonging to this company) are now under Government requisition, the sailings are under Government control, and are arranged to fit in, as far as possible, with the requirements of the respective ports. The largest steamer owned by the company—the "Rathlin Head"—carries 11,000 tons cargo weight and measurement. The accommodation provided by the Harbour Commissioners at Belfast in Yark Dock is satisfactory and efficient, unless, at occasional times of congestion. The cargoes carried by the vessels are of a miscellaneous or general description, including large quantities of grain and feeding stuffs, food and very varied descriptions of goods. The company own their own grain elevators, by which the grain is elevated from the holds of the steamers into shed, thus ensuring better despatch for the steamer. They also own gravitation conveyors and other necessary gear for the convenient and rapid handling of cargo. They have their own dock staff, with offices at Yark Dock, and, as labour is generally scarce, the vessels as a rule have excellent despatch. Belfast occupies a very favourable geographical position for distribution of cargo to other ports, and the efforts of my firm and the company have been

Mr. Lindsay—continued.

Yes, but the old body obtained a small loan of £25,000, for which the Government charged 5 per cent. interest. The Corporation of that time returned that loan in a very few years.

Mr. Hovson.

3334. May I ask if you will put in the yearly accounts and a schedule of port charges?—I will put them in.

Mr. Field.

3337. You don't intend to increase the dues unless you cannot help it?—You express the idea quite clearly.

3338. If it is not a cheap port, you won't get custom?—We regard cheapness as most essential, having regard to the maintenance of facilities.

(Chairman.) We are very much obliged to the Harbour Commissioners for the valuable evidence they have given us. Belfast is the only case where nothing is asked from the Government.

Chairman—continued.

directed to the development of trade through the port, for transshipment of goods by sea, to British and Continental ports; and also by sea and rail to all parts of Ireland, constituting Belfast an excellent distributing centre. The quantities of cargo for distribution through Belfast by the company's steamers during the two pre-war years were as follows:—

	1912-13.	Tons.	Tons.
General cargo transhipped, cross-Channel and coastwise ...	8,610	}	26,445
General cargo transhipped, foreign	16,835		
General cargo forwarded by rail (G.N.R.) ...	6,942	}	13,105
General cargo forwarded by rail (Midland) ...	6,161		
	Total		38,548
	1913-14.		
General cargo transhipped, cross-Channel and coastwise ...	9,833	}	27,538
General cargo transhipped, foreign	17,703		
General cargo forwarded by rail (G.N.R.) ...	6,599	}	13,024
General cargo forwarded by rail (Midland) ...	7,635		
	Total		41,672

A considerable quantity of traffic also goes by lighter through the Lagan Canal, which might be materially increased by improvement of the canal, and particularly if the Ulster Canal (connecting Lough Neagh with Lough Erne) was in efficient working order. And again, if the Ballinamore Canal (which is now derelict) could be made a connecting link from Lough Erne to the Shannon—full canal traffic could be established from Belfast, right into the Northern Centre and West of Ireland, reaching as far as Limerick. The cargoes imported by the Baltic service of the company, previous to the war, consisted largely of flax and hemp for the local mills and factories, a considerable portion of which was despatched by rail to mills at interior points as far south as Dundalk and Drogheda, and inland to Portadown, Armagh, Strabane, &c. The cross-Channel steamship service from Belfast connects with all the leading ports in England and Scotland, right round to London and the principal ports on the sea-coast of Scotland and England—thus giving excellent facilities for transshipment cargo. The railways also afford favourable means of transport from Belfast to interior points, all three (Great Northern, Midland and County Down) connecting with the docks, so that wagons are loaded practically along-

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Mr. HEYN.

[Continued.]

Chairman—continued.

side the steamship, saving cost of cartage, labour and risk of damage to goods. The progress of trade by the company through the port has been continuous and very progressive. For instance, in the year 1894, when we first commenced to work up the forwarding and transhipment cargo, the tonnage was 1,465, and, in 1906 increased to 15,094, whereas in 1914 (as already mentioned) the transhipment cargo by sea amounted to 27,538 tons; transhipment cargo by rail amounted to 13,934 tons; total, 41,472 tons; and undoubtedly further progress would have been made had conditions remained normal. The steamship companies and railways connected with the port and harbour give us every facility within their power as to prompt forwarding and reasonable rates. And we anticipate after the war a steady and progressive movement and further development in our trade. While my evidence so far has principally been connected with our own trading and experience of the working of the port, I have been asked (as already stated) to speak before the Commission on behalf of the Chamber of Commerce, of which body I am an ex-President and now a member of the Council and Chamber of the Postal and Telegraph Committee. The Chamber is a very representative body, embracing the general trading interests of Belfast and districts of Ulster. It has a number of trade sections, representing the leading industries, such as flax-spinning, linen manufacture, shipping and shipbuilders, wholesale grocers, etc., each of which sections nominates a member on the Council, so that the Chamber of Commerce is fully conversant

Chairman—continued.

with all trades, and any questions or difficulties which arise are promptly taken up and dealt with by the Chamber, which is in constant direct touch with most of the Government departments. I am not aware that we have any serious grievances to put before the Commission. We seem to be quite alive through the City Council and the Harbour Commissioners to deal with our own affairs; and, provided no legislation is introduced detrimental to our interests, I am confident of the continued steady progress of the city and port. My colleague, Mr. Fair, who will also appear on behalf of the Chamber of Commerce, will deal more particularly with the question of the canal development, and I am quite in accord with his views as to the desirability of Government assistance in this direction, which should materially tend to the future development and progress of the Port of Belfast.

Mr. Lindsay

3291. I have always understood that quick turn round is what shipowners desire more than anything else?—Yes.

3292. Roughly speaking, the turn round here is sufficiently quick?—Yes.

Mr. Field

3293. Is there any grain elevator besides the one your company own?—We have two here and one in Dublin.

3294. Is there another in Belfast besides your two?—No.

Mr. R. R. FAIR, Member of Belfast Chamber of Commerce, called in; and Examined.

Chairman.

3295. We would be very glad to get some information from you, Mr. Fair?—I have been away from home and only got notice a short time ago that you would be sitting here this evening, so I had no time to prepare notes of evidence. I am largely interested in the importation of grain. I have been here for 28 years, and I would like to bear testimony to the development of the facilities given by the Harbour Commissioners according as the trade demanded. We are thoroughly satisfied with the developments that have taken place and the facilities that have been provided. So far as the discharging of grain is concerned, we can discharge as fast as it is delivered. We have put out 1,000 tons a day bulk grain. If you have four or five you can even do more. We have every facility for ships on the quay and deep water for our vessels to lie in to give a ready turn-round to the ships.

3296. I suppose your rails run up to the elevator?—Yes. We cannot get Indian corn during the war. We were competing in that trade with Glasgow and Liverpool, and very successfully owing to the facilities we have at our hands here. A certain portion of our stuff was put into the canal boats. In pre-war years we would send by the canal inland from 4,000 to 5,000 tons.

3297. What is the capacity of the canal boats?—From 50 to 80 or 100 tons. They might run beyond that.

3298. How are they propelled?—Mostly by poles and horses—bowed up the river to the first lock and by horses afterwards. There are some motor lighters, but not a great many of them. Of course, we are looking for them and it would help us.

3299. Do you know the reason why there are not more motors—so it owing to the banks?—I understand that that is so.

3300. That the motion of the water was prejudicial to the banks?—Yes; of course, that difficulty may be solved too. We look on it here that the canals are a very great help to us in competition with the railways for the traffic of the country, and that there are points where the canals touch that the railways do not touch. It should be borne in mind that the canals would have been more successful in the past if the railways had not adopted the policy of cutting the rates and giving facilities to traders, there to keep staff in railway wages for an undue length of time. There is a very serious matter in regard to the Ulster Canal, which was handed over to the Lagan Trust, and we

Chairman—continued.

have repeatedly appeared before the Board of Works to get help for the development of that canal or the improvement of it. The Government got rid of it. Unfortunately, the Lagan Navigation took it over on terms favourable to the Government but not to themselves.

3301. Are the Lagan Navigation Company under an agreement in regard to keeping the canal in proper working order?—I think so. But I think they were misled by the Government Engineer of the day as to the expenditure that would be necessary to make it right.

3302. Do you know anything about the locks?—I have been through the locks. We are very anxious to see that waterway kept up. There has been some stuff brought down in barges, but in the pre-war days there was very little, and all the expense of traffic had to be borne by the inland freight.

Colonel Grotton.

3303. Is the Ulster Canal payable for canal barges?—Yes. We have sent lighters to Monaghan and Clones in pre-war times.

3304. Can you get through to Lough Erne?—No.

3305. Is the Lagan Navigation open?—It is.

3306. From Belfast to Lough Neagh?—Yes, and to Coalisland. Nearly all the traffic of our trade for Coalisland goes up that canal.

3307. If the Ulster Canal were improved would traffic come along?—You mean to Belfast?

3308. Yes, or above Belfast?—Yes, I believe there is a possibility of considerable development.

3309. What happens is that a canal is a rival to the railway in the traffic?—The question is what the railway position will be in the future.

3310. The railway runs parallel to the Ulster Canal for some distance?—Yes.

Mr. Hutson.

3311. I take it that your view is that it would be desirous to keep the navigation and the canal opened up purely for the purpose of competition?—Not only that, but for the purpose of teaching districts that the railways do not touch and to encourage the cultivation of land.

3312. Do you believe it would be useful for that purpose?—I do. The fact is that the delivery of goods into canal boats is very much easier—to put the goods into the canal boats is much simpler than putting them into railway wagons. We can load these lighters very rapidly

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Mr. FAIR.

[Continued.]

Mr. Hudson—continued.

rapidly overseas—much more rapidly than you can load railway wagons. It is a great help to our trade to have the canal.

Mr. Wilson-Fox.

3353. On that question, of discharging goods from the harbour, are the railway facilities equal to the facilities at the harbour?—There are times when there is congestion in regard to the railway facilities.

3354. But on the whole?—They serve very well.

3355. On the whole the railway facilities are equal to the harbour facilities?—Yes.

3356. Where did that staff that you put on the canal go to?—Chiefly to Portadown, Coalbrook and on the Ulster Canal to Monaghan.

3357. There is one derelict canal?—Yes.

3358. Is that a canal that you think would be useful?—Not to Belfast. I think for intermediate traffic it might be.

3359. But not for Belfast?—No.

Mr. Lindsay.

3360. Has the Ulster Canal been a losing proposition from the very start?—I believe it has been.

3361. Do you really think it could ever, short of complete reconstruction, be made to pay?—It would require very large expenditure to make it workable.

3362. Supposing it was absolutely workable, do you really think the traffic would be sufficient for its maintenance?—I think that in the altered conditions of this country the time will arrive when that will be so.

3363. The difficulty is to get return cargoes?—Yes.

3364. What do you think will go down the canal?—Agricultural produce. Timber is not a very paying cargo.

3365. The rates are comparatively small?—It depends on what the railway rates would be.

3366. Is it a fairly expensive canal to work?—Yes.

3367. When you used it, which was some years ago, did you send most of your stuff to Monaghan by the canal or by railway?—By the railway, because the railway company made it convenient to do so, and made it the practice to do so by the rates they charged.

3368. The railway was cheaper and more convenient to you than the water?—The railway company made it cheaper, but that was a special rate.

3369. When you did send by water had you any difficulty in getting lighters?—Not as a rule. There was a difficulty at certain seasons.

Mr. W. B. REA, Chairman of the Lagan Navigation Company and Managing Director of the Inland Navigation Company, called in; and Examined.

Chairman.

3370. You are Chairman of the Lagan Navigation Company?—Yes, and Managing Director of the Inland Navigation Company. The Lagan Navigation Company has no lighters, but the Inland Navigation Company is a carrying company.

3371. The Inland Navigation Company pays you?—Yes.

3372. Have you many by-ladders?—They are all by-ladders because the Lagan Navigation Company own no lighters. We have about 100 lighters on the canal altogether, and they are all owned by by-ladders.

3373. Your company own how many?—A little over one-third of the lot.

3374. Can you tell us something about the condition of the Ulster Canal?—The condition of the Ulster Canal has recently been that there is not sufficient water in it to float lighters beyond the distance of 5 or 6 miles up to Middletown. Beyond that there has been a scarcity of water, and no lighters trade on it above that point.

3375. Have you any intention of improving it?—No. Our intentions are finished up long ago. The Lagan Navigation Company have lost £25,000 during the time they have had that canal—over £1,000 per annum has been lost on the maintenance of it. The traffic has been very small for the last 3 or 4 years. None of the people who have suggested keeping open the canal have put down a penny to provide lighters, and so show that there is any necessity for it.

3376. Do you think it could not be made into a paying concern?—No. I don't think it could be ever made to pay. The water supply is very bad. That is

Mr. Lindsay—continued.

3377. As far as your particular trade is concerned the waterway might be useful, but for general traffic it would not be very much good?—That is so.

3378. You really do think that if more money was spent on the Ulster Canal that it would pay its way?—I think so the canal is there the Government ought to keep it there.

3379. You, I gather, are advocating that we should make a recommendation to Parliament or to our main committee to have a sum of money allotted to put the Ulster Canal in order?—Yes.

3380. If that were done, who is going to keep it up?—That is a matter for the Government to decide.

3381. Who would you suggest that the State should hand it to?—I don't think you will get any local company to take it up after the experience of the present company. They got an unfortunate legacy from the Government.

Mr. Fick.

3382. You have good shed accommodation at Belfast?—Yes.

3383. You pay for it?—Yes, we pay, of course, town dues, and for the goods kept there for a certain time. We also pay a quay rent.

3384. A light rent?—It is a comparatively light rent. The reason is to keep the sheds clear.

3385. Have you sent any cargoes up or down the canal recently?—We have not the grain to send.

3386. When you did send them, did the canal give you satisfaction?—Yes.

3387. Is the canal in such a condition that you would be able to send up a cargo if you had a cargo to send?—It is in a navigable condition at the present time?—Mr. Rea will answer that.

3388. About the railways, is your experience that the rolling stock is not adequate to meet the requirements very often and the wagons are not to be had?—There are times.

3389. Does it frequently occur?—Well, it has frequently occurred.

3390. Recently?—I would say very recently.

3391. Would the canal be available to carry that traffic?—It is a great help.

3392. Your view, I take it, is that with the development of agriculture there would be much more traffic on the canal?—Yes. You would have the double traffic and therefore more profitable working.

Chairman—continued.

a thing that possibly might be got over, but there is not sufficient traffic. There are no manufacturing concerns near anything of that sort to provide a large traffic of coal or corn, such as we carry on the Lagan Canal. The canal was also originally made narrower than any of the Northern canals, with the result that special boats had to be made to run on it. The boats are almost 3 feet narrower than on the other canals. That shuts out all the good paying boats.

3393. Was that due to the size of the locks?—Yes, the locks were all small. The length is the same as that of the Lagan Canal locks, but the breadth is about 3 feet narrower.

3394. What water have you got in the sluice?—The maximum draught is 3 feet.

3395. What about the Lagan Navigation?—It is in good order. We have no complaints about it in any way. We are able to handle all the traffic that is given to us there. Like the railway companies sometimes we are short of lighters, perhaps as they are short of wagons, but generally speaking we are able to cope with all the traffic and to carry it satisfactorily.

3396. Do you contemplate making any improvement on the Lagan Navigation?—No, there is nothing we have in contemplation of a serious nature. The trouble is the Ulster Canal. It is a hopeless concern. It really prevents our development on the Lagan Navigation because it runs away with all our surplus profit, and the result is that when we are anxious to carry out improvements on the Lagan Navigation we have no money to do so.

3397. Can

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Mr. REA.

[Continued.]

Chairman—continued.

3357. Can you let us have a statement showing the amount earned?—Yes, roughly speaking, the Up traffic was about 125,000 tons in pre-war time, and about 30,000 tons in war times, and the Down traffic is about 20,000 to 40,000 tons.

3358. How do your rates compare with the railway rates?—The railway rates at present in some places are lower than ours. Generally speaking, in normal times our rates and the railway rates are practically the same, the reason being that the railway companies come down to our rates and the result is with the quicker service they can give, they can cut us out of the traffic. That occurred at Monaghan. They cut us out completely there. I interviewed Mr. Bagwell, the manager of the Great Northern Railway, and he told me straight, "We cannot do anything because it is quite the custom across the water where there is canal competition to give preferential rates on the railways, and we are doing it here." That cuts us out completely.

3359. Is there any way that you can get around that?—No, I don't think so. Since we took over the Ulster Canal we have been working it up, and doing out almost to make a paying thing of it, but we never succeeded in doing anything except losing £1,000 a year, and, to my mind, that canal is utterly hopeless.

Mr. Lindsay.

3360. Would you tell the committee the negotiations that took place between you and the Government as to the Ulster Canal some 50 years ago?—The canal was originally in the hands of the Board of Works. They put advertisements in the Press asking for offers for the canal. There were no offers forthcoming, and the chairman of the Board of Works got into communication with our company, and finally it was arranged that the Lagan Navigation Company should take it over for ten years on trial, with liberty to elase and sell off at the end of the ten years if we could not make it a success. A Bill was promoted on that basis, and when it came before the House of Lords the chairman of the Committee said: "Will you take this canal in perpetuity?" I said: "No, it is contrary to our arrangement." He said, "We will postpone the Bill for a week, and we will give you no Bill unless in the meantime you agree to take the canal in perpetuity." I came home and consulted the company, and having spent so much money in promoting the Bill, they decided to take it.

3361. In other words, you are the victims of a difference of opinion between the Board of Works and the Lords' Committee?—Yes. We were assured that there would be an ample supply of water. The engineer, who was also engineer for the Board of Works, said: "I pledge my existence that if these works are carried out there will be no shortage of water." He is dead, but there is a shortage of water in the canal, and that is one of the things that killed us.

3362. What I want you to do is to make a statement showing what your loss would be if you gave the Ulster Canal credit for the tolls on the Lagan that would not be there if the canal had been closed?—Yes, it is not very much. We can give that easily.

3363. Your claim has always been that you were misled by the Government, and were put into a false position and consequently lost £20,000?—Yes.

3364. And you asked the Government in all decency to pay that money?—Yes.

3365. And hitherto they have not done so?—No.

3366. Did you take over the Coalbrook Canal about the same time?—Yes.

Statement by Mr. W. L. MARSHALL, Solicitor,

Mr. Marshall.] I appeal on behalf of the Bangor Urban Council to get a grant for harbor improvements. The town of Bangor is situated on Belfast Lough, twelve miles east of that city. It has always been a fishing centre. Up to thirty years ago there was only one small pier in Bangor. At that time there was not such a demand for fish as there is at present. The town was then very small. In thirty years the population of the town has increased from 3,000 to 11,000. In the summer time the visitors bring the population up to about 40,000.

Mr. Lindsay—continued.

3367. I gather if the Ulster Canal were abandoned you would want to keep that canal?—It serves a good purpose, and just about pays its way, or a little over.

3368. If it paid anything substantial you would have to give credit for that?—Yes. It does not give anything substantial.

3369. At Coleraine there was evidence to show that there was an increase in traffic on the Bann?—We have done that for them.

3370. Do you see any prospect of using the Bann at Coleraine?—I don't know so much about it down there, and, candidly, that is not our interest.

3371. You want to bring the traffic to Belfast?—Yes.

3372. Are you carrying any of this clay?—Yes, practically all.

3373. How many lighters have you got?—Five motor lighters and one engine ready to install.

3374. Have you found any injury to the bank as a result of using the motor lighters?—No.

3375. You look forward rather to the increase of motor?—Yes.

3376. You still trade up to May?—Yes.

3376a. And you don't trade yourself to Portadown?—Not regularly, but we go there when fall cargoes offer.

3377. Your tug takes over the lighters?—Yes.

Mr. Field.

3378. Do I understand you to say that the canals are scarcely useful for the transmission of goods except in very favourable circumstances?—No. I say the Lagan Canal and the Coalbrook Canal are serving very useful purposes, but that the Ulster Canal is not serving any good purpose except perhaps for a little traffic over five miles distance.

3379. Yet spoke of the scarcity of water. Since we came here there was no scarcity of water. How does it happen that you were so scarce?—I am speaking of normal times?—There has been no effort to get up the Ulster Canal beyond five miles for the last three years.

3380. Is that owing to the scarcity of water?—No one has been sending lighters.

3381. I understood you to say that the breadth of the canal had something to do with it. How many locks are on the Ulster Canal?—Twenty-six, I think.

3382. You said also, I think, that the agricultural men did not make any effort to provide a lighter. Was any application made to these men?—I was not speaking so much of the agricultural men as of the people of Monaghan, which was the stronghold of our traffic. They get their traffic largely by the railway, but for a time they got it by the canal, to bring down the railway rate.

3383. Is it your view that if the Ulster Canal is allowed to go to neglect that it would not prejudice the agricultural interests of the districts served?—I can only answer that by saying that all the time we were trying to work the Ulster Canal we got practically no farm produce down.

3384. So you think the agricultural development of the country would not suffer if the Ulster Canal were shut down?—Judging by our past experience, I would say not.

3385. Even in face of the increased agricultural production?—I cannot say as to the future.

3386. Would you take the responsibility of shutting it up?—Yes, before I would undertake to pay anything like the amount involved in the upkeep of it, because I don't think it is worth it.

Chairman.] We are very much obliged to you, Mr. Rea, for the evidence you have given.

Chairman.

3387. You are putting all this in, in evidence?—Yes.

3388. I may say at once that the evidence all tends to prove that you want greater facilities?—We want a harbour into which we can bring fishing boats and drifters.

3389. We understand that, but it does not come within our reference. We cannot make any suggestion that the harbour should be built?—It is only the building of two walls for the purpose of facilitating transport.

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MR. MAHAFFY.

[Continued.]

Chairman—continued.

transport. If greater facilities were given for landing fish there would be a big trade there, and Belfast could be supplied with fish that otherwise would come from Scotland. On this ground, we suggest that the matter comes within your Terms of Reference.

3360 All we have got to do is to find out the facilities offered by ports and harbours. We can hardly say that we recommend that a harbour should be built—I think it is a very necessary thing. We have already applied to the County Council to see if they could obtain a grant to enable us to do this, but entirely without success.

3391 We realize that you want another harbour—that you want more facilities and we would strongly recommend you to the Department of the Government which deals with the matter.

3392 Have you applied, Mr. Mahaffy, to the De-

STATEMENT OF THE LORD MAYOR OF BELFAST.

The Lord Mayor of Belfast (Alderman Sir James Johnston) [Permit me to apologise, Mr. Chairman, for my unavoidable absence from your sitting here to-day. I should have liked to be present, but was away in Dublin, and have just arrived back. I bid you and the other members of the committee welcome to the city of Belfast, particularly under your presidency, in view of the connection of your ancestors with Belfast. I am also glad to see some of our Irish Members of Parliament present, and I am sure the work of your committee will be useful to the country.]

partment of Agriculture, who are looking after this particular business?—Yes, through the County Council.

Chairman.

3393 The County Council have applied, Mr. Mahaffy—I don't know whether they have applied, but they did not give us any great encouragement.

3394 We will place the evidence before our Main Committee, but I don't know what action they will take. We are very sympathetic!—Probably you would suggest to the Main Committee if they would consider it advisable to send the matter before the Department. It would have great weight with the Department.

Chairman. I am very much obliged to you and to all the other witnesses who have appeared before us this afternoon, and given us very valuable information.

My absence was not due to any want of courtesy. I welcome you here now, and I should have liked to have done so earlier in the day.

Chairman. On behalf of the Sub-Committee, I wish to thank you sincerely for the kind words you have spoken. It has given us very great pleasure to come to Belfast and see your port. I think I may say that the sub-committee were deeply impressed, and are very proud that Belfast is the great seaport of Ireland.

TWENTIETH PUBLIC SITTING: WEDNESDAY, 25TH SEPTEMBER, 1918.

At the TOWN HALL, NEWRY, at 3 p.m.

MEMBERS PRESENT.

Mr. Wilson-Fox, M.P., Chairman of Select Committee.
Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.
Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.

Mr. PHILIP MACNULTY, Secretary.

SIR ARTHUR SHIRLEY BERN, M.P., IN THE CHAIR.

Chairman. May I first of all say why the Sub-Committee is here? On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee appointed a sub-committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may con-

sider necessary for this purpose. We have visited a number of ports, and we have now come to Newry. We are anxious to get information regarding the transport facilities and suggestions as to their improvement in order that we may be in a position to report to our Main Committee at the beginning of next month. Intimation that this inquiry would be held was published in the *Newry Telegraph* and the *Newry Reporter*. We shall be very glad to hear what are the facilities for transport offered by the port in Newry and by the canal what facilities are looking in order to encourage the trade of the port. We are not in the position of being able to promise anything further than putting the views laid before us to-day before our Main Committee.

MR. PHILIP O'HAGAN, Chairman of the Newry Harbour Trustees, called in; and Examined.

Chairman.

3386 You are the Chairman of the Newry Harbour Trustees?—Yes. On behalf of the Harbour Trustees and the people of Newry generally, I beg to welcome your committee to the town, and I hope from what you have seen of the district that you have so far enjoyed yourselves here. I do not intend to go into any figures, I will leave that to experts. You have come to inquire how transport facilities may be developed in the port of Newry. Our port covers a large district—about 3,600 square miles. The unanimous opinion of the merchants in Newry is that our port is unique and
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anomalous. Originally the canal entered the river in the town, but about 150 years ago the Government extended it about two miles down the river. In 1838 it was taken over by the Navigation Co. with the proviso that it should be extended 1½ miles further seawards. This against the advice of Mr. Nimmo, a celebrated engineer of the day. All this turned out disastrous for the port; as the size of ships increased and steamers replaced sailing vessels, with the result that the banks being built of loose pitching are being continually washed away, and the cost of upkeep is getting beyond

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Mr. O'HAGAN.

[Continued.]

Chairman—continued

beyond the financial resources of the Trust. As you have seen, the river runs parallel with the canal up to the town of Newry, and it has always been a source of amusement why the river was not deepened instead of cutting a canal. The unanimous opinion of the town is that to keep up the transport facilities and give Newry the benefit of its geographical position it is necessary to deepen the river right up to the town and do away with the present sea canal. We think that it is not asking too much of the Government to do this, seeing that the existing extension was against the advice of the Newry people and their engineers. And in 1880 so much were the Lords of the Treasury impressed with that that they recommended a free grant of £102,000, the estimated cost of a similar scheme. That is all I have to say, but other witnesses will give you evidence.

3397. What became of the money?—The scheme fell through. They were not able at the time to buy up the shares of the Navigation Company, who wanted £55 per share I believe. They wanted a very large sum for the purchase of their shares.

3398. That Bill of 1880 was Carrill's Bill?—Yes. The Treasury recommended a free grant of the full amount of the money to complete the undertaking—£102,000.

3399. What position would the Harbour Trustees be in, in regard to getting local assistance towards any improvements that would be necessary?—At present they are being assisted by the town. The town has guaranteed the interest on a loan of £25,000 that purchased these shares that we have now—that purchased the undertaking, in fact. The town is always ready

Chairman—continued.

and willing to do everything that is in its power. They have assisted the Trust to the very best of their ability, and if it was possible to do anything more to help in along they would do it, but the scheme at present is so gigantic that I am afraid their assistance would not be very much, and we can scarcely ask anything from them having regard to what they have already done. Of course, when making that remark I am not right in saying that they would not do anything. That is for themselves to say.

Mr. Puck

3400. Are you in the same position now in regard to that £102,000 as when the offer was made by the Treasury—that is to say, do you want the money as badly now?—The canal is worse, but of course that was to do away with the sea canal.

3401. The promise of that money was given on the understanding that the canal as it existed then and as it exists now was to be done away with and that you were to deepen the river?—Yes.

3402. What would be the amount of guarantee that could be given by the town?—I cannot say whether they would give anything at all or not. That question has to be put before them. There is a guarantee at present to the extent of £25,000 by the town.

3403. You are in a worse position now than then?—Yes, on account of the fact that the canal is in a worse position.

3404. And the vessels have got bigger?—Yes.

3405. The money is wanted more particularly now than then?—Much more.

Mr. ARTHUR GARTLAN, Solicitor to the Newry Harbour Trustees, called in; and Examined.

Chairman

3406. You are Solicitor to the Newry Harbour Trustees?—Yes. I have been Solicitor to the old Newry Navigation Trust and to the present Newry Harbour Trustees for 35 years. In 1882 I succeeded to it. The position of the old Trustees is provided on the Act of 1839—the Newry Navigation Act of 1839. That is really the foundation of the ownership and the powers conferred on to the present day.

3407. When did the change take place between the two bodies?—1860 was the time of the actual transfer, but there were a couple of Acts of Parliament that were passed in the meantime that I think I ought to direct your attention to. There was always in Newry a cry out for deep water and for the improvement of the approach from the sea to the town, and that came to a head in 1880. Now, at that time the old Board were in existence, and, as you understand, they were a proprietary Board. They had subscribed their money, practically £30,000, made up, I think, of 1,500 shares of £20 each fully paid and they were in full possession at the time, but the demand from the people of Newry for an improvement in the waterway to the town was so clamorous that it was felt that something had to be done. Then practically all the leading men of Newry joined in promoting a Bill at their own expense. The Navigation Company had nothing to say to it, except that two or three of the proprietors or directors were also promoters, but it was taken up by the people of Newry themselves, headed by Lord Kilmorey. They applied for and obtained that Act which is locally known as Carrill's Act of 1880. I have a copy of that Act here. They got powers of borrowing under the Act £210,000. That, of course, contemplated that they were to buy out the old shareholders. The rest of the money was to go in doing the work that is fully set out in the Act. That fell through because, as I understand, the Treasury were willing to advance the money if the shareholders would go *pro posse* in the undertaking; but it fell through, and that Act of Parliament became a dead letter.

3408. Was that money advanced?—It was to be borrowed. There was no question of a grant.

3409. Power was given to borrow?—Yes, £210,000. We could get it from the Treasury or in the open market.

3410. What was the £102,000?—I don't know if it was a free grant or a loan. There was power to borrow £210,000 under the Act of Parliament.

Chairman—continued

3411. Is that £102,000 in addition to the £210,000 or part of it?—I don't know. I can only go by the Act of Parliament. There was power given by the Act of Parliament of 1880 to borrow £210,000, and the work to be done is set out in the Act.

Mr. Leasing

3412. The Act of 1880 makes provision of £102,000?—No. That application came later. I understand. At all events, Carrill's Act of 1880 fell through, and then the old Navigation shareholders and proprietors felt that it was incumbent upon them to do what they could in the matter, and they then went for another Act of Parliament, to enable them to borrow £40,000. That was the Act of 1884. They got an Act, which I have here, which enabled them to borrow this sum of £40,000, and that was devoted to deepening the channel up at the narrow water near Warrenpoint.

3413. They borrowed that money?—Yes.

3414. Have they paid off any of it?—At that time I think the existing loan they had from the Treasury was in or about £51,000, and they then borrowed the further sum of £40,000. After a great deal of trouble they got that work completed. There was a great deal of trouble with the contractor and with some people in the opposite side of Warrenpoint about the oyster beds. The old Navigation directors had to advance at one time, I think, about £15,000 of their own money to complete the work, but they got it finished. The Act gave them power to change rates upon goods which they had not up to that time, and they had to get a certificate from the County Court Judge of County Antrim before they could impose the rate when the work had been finished. That brings us up to 1894. Then the next Act of Parliament they got was in 1897. They owed this money to the Treasury, about £71,000. Their position in 1897 was that they owed this £71,000 to the Board of Works or the Treasury, and the directors thought they might improve the position by consolidating their loans, which were made up of money borrowed from time to time at various rates of interest. They thought they would be wise in consolidating the loans. They got their Act of Parliament and they issued 4 per cent. Debenture Stock, which was taken up very rapidly. It was engineered by Mr. McMan, a well-known stockbroker in Dublin, and I think it was really issued at small premium, 102 for £100 stock.

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Mr. GARTLAN.

[Continued.]

Mr. Lindsay—continued

stock. I should say that out of that money the debt to the Treasury was paid.

3415 Does that mean the £71,000?—Yes, and I think it is only fair to the old Navigation Company to say that there was not a penny that they got from the Treasury that they did not give back with full interest. The Treasury never lost a halfpenny by them. In 1901 a Bill was passed transferring the whole undertaking, with its liabilities, to the Newry Port and Harbour Trustees. The position then was that the concern was taken over subject to the debentures for £72,000, and the arrangement was made that the holders of the £50 shares were to get £26,000 between them. That £26,000 was borrowed, and there were also three other small loans. First you had the £72,000 in Debentures, then you had £26,000 borrowed, and then there were three small loans borrowed.

3416 What is the total debt to-day?—It is rather peculiar about that £72,000. There was a sinking fund provided for the protection of the Debenture holders—£500 a year was to be put aside annually and invested in buying up the Debentures or purchase of Trustee stocks. I think there have been about £12,000 of the Debentures bought up. That does not relieve the present Board in any way, because the interest has to be paid still as if the whole debt was due.

3417 You have only got £26,000 of these Debentures?—Yes, but our liabilities with interest on the £12,000 has to be added. We have still to pay interest on the full £72,000. The other small loans were short loans.

3418 Can you tell us what is the debt to-day?—£26,000 & 3d. to the Scotch Provident Institution for loans.

3419 In addition to the £72,000?—Yes. The Debentures purchased by the Trustees are withdrawn from the public market and the interest on them goes to increase the sinking fund.

3420 You only owe £26,000 to-day?—Quite so. I don't think there is anything else that I need trouble you with. There was power to borrow up to £80,000 under the Act of 1844, but we did not do it at the time. Under the Act of 1901 we have also power to borrow £20,000 with the consent of the Board of Trade,

Mr. Lindsay—continued

but the question is would anybody lend it, because the Scotch Provident Institution would take priority.

3421 You owe £86,000—have you power to raise any more?—Yes, under the Act of 1901 we can borrow £20,000 with the consent of the Board of Trade.

Mr. H'cheson-Fox

3422 With regard to the £26,000, I understand the interest on that was guaranteed by the town?—Yes.

3423 Have they to pay anything under their guarantee?—Yes, a small sum twice.

3424 What sort of sums?—About £432 was the first instalment they paid, and the last demand was something about £371.

3425 If the undertaking prospers would that amount be repaid to the town?—I think it would be under the Act.

Mr. Lindsay

3426 You say that the Trustees took over the Navigation in 1901?—Yes.

3427 There was no public authority before 1901?—No.

3428 I suppose you are not in a position to give any evidence as to the condition of the Navigation?—No, but we have the Inland Inspector as well as the Engineer here.

Mr. Field

3429 Do I understand you to say that you owe £26,000?—Yes, in round numbers.

3430 What security have you for the repayment of that?—The lenders have got the whole undertaking, which extends very nearly from Portadown to Warrenpoint—all the rates and tolls.

3431 Are your rates and tolls sufficient to meet the sinking fund and interest and also to maintain the canal properly?—Mr. Lamb, the Secretary, will be able to answer that question.

3432 You said something about oyster beds?—Yes.

3433 Where are these oyster beds?—Right opposite Warrenpoint.

3434 Is the oyster fishing carried on still?—Yes. Mr. Woodhouse did own these oyster beds. I cannot say who are the present owners.

Mr. EDWARD A. LAMB, Secretary to the Newry Harbour Trustees, called in; and Examined.

Chairman.

3435 You are Secretary to the Newry Harbour Trustees?—Yes, sir.

3436 You have a statement which you wish to hand in?—Yes, I shall hand in statements of Inland Returns of Capital and Sinking Fund and of Loans from the Scottish Provident Institution.

STATEMENT OF INLAND RETURNS.

Years ending 31st March	1912	1913	1914	1915
Tons	35,360	32,530	36,480	32,560
Tolls	£660 12 1	£736 6 6	£811 0 7	£653 17 4
Expenses	608 6 2	539 9 7	654 25 2	659 4 10

Tolls

Under 10 tons, 8d per lock.				
10 to 20 " 10d, " "				
20 to 30 " 1/- " "				
30 to 40 " 1/3 " "				
40 to 50 " 1/6 " "				
50 to 55 " 1/9 " "				
55 tons and upwards 2/- " "				
Inland Tolls, 1858	-	-	£1,632 9 8	
1860	-	-	745 10 6	
1870	-	-	753 9 6	
1880	-	-	830 15 3	
1890	-	-	733 16 6	
1900	-	-	808 5 6	
1910	-	-	553 17 4	

Chairman—continued

STATEMENT OF CAPITAL AND SINKING FUND.

Undertaking taken over by Trustees on 6th October 1902:—

Debentures at 4 per cent (1897)	£72,000	0 0
Purchase Money	26,400	0 0
Parliamentary and other expenses	3,500	0 0
	£102,000	0 0

First Balance Sheet of Newry Port and Harbour Trust, 31st March, 1904.

Sinking Fund for redemption of Debentures out of Revenue:—

Year ending 1st March,	1896	£300	0 0
" " " 1898	71	16 3	
" " " 1900	588	3 9	
" " " 1901	600	0 0	
" " " 1902	600	0 0	
" " " 1903	600	0 0	
" " " 1907	636	11 6	
" " " 1908	609	14 11	
" " " 1911	607	6 1	
" " " 1912	591	2 6	
" " " 1913	559	0 0	
" " " 1914	600	0 0	
" " " 1915	600	0 0	

£7,404 15 0

Purchased Bonds out of Revenue and Accumulated Interest:—

100 £2100 Bonds	£12,100
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Statement

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MR. LAMB.

[Continued.]

Chairman—continued.

STATEMENT OF LOANS FROM SCOTTISH PROVIDENT INSTITUTION.

No. 1 LOAN.

Purchase-money of undertaking	£	20,400	0	0
Oct. 1905 Instalment paid	4754	5	9	
" 1904	"	754	5	9
" 1905	"	754	5	9
" 1906	"	754	5	9
" 1907	"	754	5	9
		3,771	8	0

£22,600 11 3

No. 2 LOAN.

Parliamentary and other expenses -				22,500	0	0
July, 1903 Instalment paid	625	0	0			
" 1904	"	625	0	0		
" 1905	"	625	0	0		
" 1906	"	625	0	0		

No. 3 LOAN.

Parliamentary and other expenses	-	-	£1,500	0	0
July, 1905 Instalment paid	122	4	6		
" 1904	"	"	122	4	6
" 1905	"	"	122	4	6
" 1906	"	"	122	4	6
" 1907	"	"	122	4	6
" 1908	"	"	122	4	6

£2,255 13 0

Loans for Pumping Station, 1907	£3,000	0	0
February 14th, 1908, Instalment paid	100	0	0

£3,900 0 0

The town of Newry, which serves as the sea gateway for the district comprising the counties of Armagh, Carrick, Down, Fermanagh, Monaghan and Tyrone, is situated six miles inland from deep water in Carlingford Bay, and is dependent on the waterway connecting the docks with the bay. This is a canal which extends three miles seaward and connects with a lock with the headwaters of the bay. A tidal river which runs alongside the canal from Newry is entered through locks and leads into the bay, and at a distance of about three miles from the locks deep water is reached. The canal goes inland to Portadown, where it joins the Banx River which runs into Lough Neagh, thus connecting Newry with the counties of Monaghan, Fermanagh and Tyrone, and through Lough Erne to the Shannon, and was constructed by the Irish Parliament between 1732 and 1741 for the purpose of carrying coals from the Tyrone coalfields to Newry for transshipment to Dublin and joined the river at Newry, but in order to get deeper water was extended in 1771 to about 1½ miles further south. About 70 or 80 years ago it was extended 1½ miles further seaward alongside the river and the present locks constructed. This only permits a vessel of about 200 feet to enter at or about high water and drawing no more than 13½ feet maximum. It may be explained here that this later extension of the canal was not the free act of either the township or the Navigation Company. The Navigation Company to whom the canal was handed over by the directors of Inland Navigation in 1828, were obliged by the Government to undertake the extension, seen to a point further seaward, alongside the river, and raise a sum of £20,000 for the purpose, and the work was completed including the present Victoria Locks in 1850. Since then sums of £42,000 and £55,000 were obtained by loans and spent on improvement works, and these loans have all been repaid to the Government. For years the canal and locks afforded a fairly suitable waterway for the trade of the port of Newry, but later on the silting of the river bed and the tortuous nature of the channel necessitated the expenditure of the above £42,000 in widening and deepening the channel from the locks. This was done in 1894 by the Newry Navigation Company, and a uniform depth throughout of 7 feet at low water of ordinary spring tides was

Chairman—continued.

certified as having been obtained. A system of mooring barges was also laid down in a pool in the river about a mile below the locks for discharge of shipping of too great a length and depth to enter the locks, the cargoes of which were brought by lighters to the town. The class of shipping for which the ship canal was originally intended has long since ceased. Seal has entirely given way to steam, and the canal banks, which were only constructed of dry stone pitching, have been a constant source of expense owing to the erosion and deterioration caused by steamers' propellers, etc., in a confined space. Added to this, the continual silting and deposit in canal bed have increased to such an extent that steamers have great difficulty in reaching the docks in passing certain bends. In 1901 the undertaking, including the inland canal, was transferred by the Newry Navigation Company to the present Newry Port and Harbour Trust, who purchased the shares of the company at £20 each, the necessary sum being raised by loan from the Scottish Company, amounting to £20,000, and took over debentures amounting to £72,000. The town rates were pledged as security for the interest on the loan. For a number of years the net revenue, which for the past six years has averaged £6,145 and last year was only £5,585, has been insufficient after paying the interest on debentures and loans, amounting to £5,015, to meet either the sinking fund or debentures on the instalments on the loans, and the former is now over seven and the latter over nine years in arrears, and on two occasions lately the town was called upon to pay the interest on the loans. One hundred and twenty £100 debentures have been purchased out of sinking fund instalments and accumulated interest and cancelled—£12,000. Further loans had to be contracted, one, amounting to £5,000, being for a pumping plant to make up for loss of water as canal through leakage and defective lock gates. The existing canal and locks is quite inadequate for the trade of the town and district, and even were the canal dredged and deepened it is impossible to widen it, situated as it is between the Demesne, Newry and Greenore Railway on the one side and the river on the other. Besides, the present locks present any trade in large steamers such as present-day requirements demand. The Trustees of the Harbour, as elected body, three-fifths of whom represent the Urban Council, are therefore unanimously of the opinion that the only way to develop the Harbour, which is the most important one between Belfast and Dublin, is to be effected by the deepening of the natural river, for which years ago they took trial borings and soundings. They believe it could be easily backed and dredged, and by the construction of a half-side dock and gates across could be had to the Albert Basin, on one side of which facilities exist for discharging coal from steamers to rail, and also affords the necessary accommodation for the requirements of the general cargo trade, but they are without funds to make any improvements, and they also see with regret that trade has gone from Newry to deep-water ports, so that their receipts are lessening and their existing trade is realised for want of the facilities it requires. It will be seen, therefore, that the Trustees, who are all connected with the leading trades of the town, are deterred not only from improving the waterway so as to afford adequate accommodation for traffic, but even to do anything to remedy existing evils owing to financial causes. They feel that nothing short of a reversal from the canal to the river, where there is ample scope for making a proper channel from deep water to the town of Newry, would promote the development of their port or give it the advantage of its natural position. With 7 feet already existing in part of the river, a further deepening of 10 or 12 feet up to the proposed locks at Newry would give an immense impetus to the trade of the town and district, whilst from an hour of flood to within an hour of low water the tide would be available for a large number of small vessels, and would materially increase the seaboard traffic and develop trading that for want of facilities has gone elsewhere.

3457. These are very interesting statements, which we will bring into our Report. There are a few points upon which we would like to question you—There were a couple of matters mentioned in the last evidence that I would like to refer to. In connection with the

Act

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Mr. LAMB.

[Continued.]

(Chairman—continued.)

Act of 1890 a sum of £21,000 was to be raised for the purchase of the Canal Company, the payment of the loan and the carrying out of the improvements at an estimated cost of £108,000. The Treasury recommended a free grant of £108,000 to carry out the improvements. That fell through owing to the fact that the then Navigation Company wanted £25 for their £50 shares.

3433. That meant they were only going to have debentures issued for the difference?—There were no debentures at that time.

3439. There were no debentures to be issued for the purchase?—That was in 1890 this Bill was passed.

3440. You were to have power to contract loans for £210,000?—£108,000 that we could still borrow.

3441. At that time?—Yes.

3442. The people did not think it good enough to buy out the canal proprietors at £54 per share?—No. There was another question with regard to the Trustees. They are formed by Act of Parliament. In consequence of the guarantee that the town gave for the undertaking, nine members of the Trustees are elected by the Newry Urban Council, three by the shipowners and three by the traders.

Mr. Lindsay.

3443. This body was formed in 1901?—Yes.

3444. Prior to that you had no public authority in Newry at all?—No.

Chairman.

3445. Your coal imports were down last year?—Yes, owing to the closing of the ports and the shortage of tonnage.

3446. So that prior to the war you had sufficient money to pay your interest?—Yes, but not to pay the sinking fund or the usual instalment of the loan. We paid off our instalment on our loans since 1908. We have not paid the sinking fund on the debentures.

3447. How about your dues?—Prior to the war we charged 1d. in and out, and we have increased that now plus 80 per cent. We have increased our cargo rates on coal by 100 per cent.—to 3d. per ton. We are confined by Act of Parliament to certain limit. Grain is 6d. and flour 6d. We also charge the full rate on oats.

3448. That is regulated by Act of Parliament?—Yes. At the present time the only traffic we are getting is coal.

3449. If you wanted to raise your rates further, to where would you have to apply?—If we wanted to raise our sea tolls, we would not have to apply to anyone, because our limit is very high, but in the case of the cargo rates we would have to apply to the Board of Trade if we wanted to increase them.

Mr. Lindsay.

3450. Who is the authority in regard to the river from Victoria Lock to the town?—We are.

3451. Were you always that?—Yes.

3452. You would have no difficulty in substituting the river for the existing canal?—We would possibly require the permission of the Admiralty, but it is within our jurisdiction.

3453. The railway to Warrenpoint is over a swing bridge?—Yes.

3454. What incident on that?—Probably our precautions.

3455. The Navigation Company. You control the river as well?—Yes.

3456. And they had nothing to do with it?

Mr. Gordon.] They brought up boats at one time. The Railway Company some years ago wanted to close that bridge and make it a permanent bridge. There was an inquiry here, and I was interested by the Navigation Company and I opposed it, and it was insisted that it should be left as a swing bridge. We gave evidence at that time that boats had been brought up to Quay Street.

Mr. Lindsay.

3457. As a rule, Mr. Lamb, the inland portion of the Navigation has neither made money nor lost money?—Not up to this moment.

3458. Does it contribute any revenue to the sea portion of the Navigation?—Yes.

Mr. Lindsay—continued.

3459. Is there much downward traffic?—No, only trivial things.

3460. Is it all going-up traffic?—Yes.

3461. Even though you lose a little on the inland portion, you would not like to see it closed?—No.

3462. You as a body are quite prepared to lose a little money?—We have been prepared to lose a little money.

3463. Have you ascertained what amount is brought to the inland navigation as compared with the sea?—We only charge against the inland receipts the actual amounts we get from the barges going through. Since the Canal Control Committee came they permit us to charge 10 per cent. on establishment expenses against the inland portion. It goes to Lough Neagh. The Ulster Canal is practically closed. In consequence of that canal being there we were able to get toll-free lengths from here to Monaghan for 4s., whereas 7 or 8 miles further on the rate is 8s.

3464. How many miles?—The difference between Clones and Monaghan.

3465. What is the rate to Armagh?—4s. from here. It is a direct line from here. The inland tolls in the year 1880 were £1,832. Last year they were only £533. A question was asked about the guarantee which the town has given. The town guarantees the interest on the loan of £26,000. There was a railway promoted in the same year, and they guaranteed interest on that as well, but that has fallen through. I think the Newry people have done their share.

Mr. Keating.

3466. I understand from your evidence that there is no authority over the Harbour Trustees at all?—You have the Board of Trade, of course.

3467. Have you any other authority such as the County Council?—No.

3468. Or any Department of the Irish Executive?—None. The only thing is that the Newry Urban Council control our Board owing to the fact that they elect nine out of the 15 members.

3469. The higher authority is the English Board of Trade?—Yes.

3470. Do you think it would be to the interest of this port if it were possible to establish a uniform control over all the harbours and ports in Ireland?—Most unquestionably if they did their business fairly.

3471. You think such a body would understand your difficulty?—Yes. Newry is the best situated centre on the East coast for distribution. We cover an area of about 2,500 square miles, with a population of 500,000.

3472. Parliament forced this town, or the authority which owned the port, to spend £100,000?—Yes. They persisted, against the advice of the people, to extend the canal a mile and a half further into the river.

Chairman.

3473. How often has the Board of Trade refused any requests that have been made to them by the Harbour Commissioners?—We never made a request to them.

3474. You never asked them?—No. I don't think there would be any use.

Mr. Field.

3475. Do I understand that at the time the proposal came from the British Government, the improvement could have been carried out if the shareholders had taken less for their shares?—Yes, at that time.

3476. I believe these were £50 shares?—Yes.

3477. And they wanted £55?—Yes.

3478. And they were subsequently sold for £20?—Yes, to us.

3479. They backed the wrong horse that time. What position are you in at the present time with regard to sinking fund and interest?—Last year we carried forward £3,685 to net revenue account, and it takes £5,915 to pay interest alone.

3480. So that you were just able to pay the interest?—About £230 short.

3481. How are you able to keep up the canal?—We had to go to the town for that charge.

3482. Only for the assistance given by the town you might have to shut up the canal?—Yes.

3483. So you are in this position—that unless you get some assistance the canal will be closed up, unless the

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Mr. LAMB.

[Continued.]

Mr. Field—continued

the town guarantee what is necessary to keep the canal going?—Yes. And this year, owing to the war restrictions, we may not be able to pay interest on our debentures or loans.

3484 If the inland canal was closed you think the railway rates would be raised?—Yes.

3485 Is it your opinion that it is necessary in the interests of the exports and imports to have that competition between the two?—Yes.

3486 Is it your evidence that this canal serves, I think you said, 2,500 square miles?—The port, I said.

3487 The port is served by the canal?—Yes.

3488 This port, you said, serves that immense area?—Yes.

3489 Are you of opinion, in connection with the increased food production, that you would have a greater export of food to Great Britain if the improvements you require were carried out?—Certainly.

3490 That the trade of this country—the agriculture of this country—would be benefited, and that the British people would be better fed?—Unquestionably.

3491 Your opinion also is that we ought to have an Imperial authority over all the ports and harbours?—Yes, if they exercised their authority fairly.

Mr. Hudson

3492 I gather from your evidence that the volume of your trade is largely in connection with coal?—Yes.

3493 And if the improvements which have been outlined, here to-day were carried out do you think that the coal trade would improve?—If we got the proper service from the Great Northern Railway our coal trade could be easily doubled from Newry Island.

3494 May I ask as to whether, in your opinion, you have full railway facilities?—No, sir, we have not.

3495 Have you any complaint to make in that direction?—We have. There is constantly an inadequate supply of wagons for the purpose of taking away our coal. That is a constant source of complaint against the Great Northern Railway Company. As a matter of fact, we have sent deputations to the Directors of the Great Northern in reference to this matter, and since I became Secretary to the Harbour Trust this complaint becomes so regular that when Mr. Bengue was appointed Director of Transportation I interviewed him with regard to this matter. He asked me to explain how it came under his supervision, and I said that I thought he was appointed for the purpose of getting shipping facilities increased and getting vessels away. I said, "If you can get us a better supply of wagons we can send more ships away." For six months we had no complaint whatever, but it has gone back again to the old course.

3496 Can you tell me what answer you received from the Railway Company?—They could not give us the wagons.

3497 Do they lay down any regulations as to the notice that should be given them in connection with wagons?—The merchants give the notice.

3498 Do they give reasonable notice?—Yes. In my opinion, in Newry we do not get the advantage from the Great Northern Railway that we are entitled to. I make that statement deliberately and publicly. Another great facility to us would be if the Railway Company put in a siding on the east side of the Albert Basin.

3499 Have you asked for it?—Yes, years ago. Mr. Bargees was down here himself last year.

3500 What objection did the Railway Company raise?—They said it would cost them an extra signalman on that side of the line.

Mr. FRANK FISHER, JP, Steamship Owner and Member of Newry Harbour Trust, called in; and Examined.

Chairman

3501 You are a steamship owner, Mr. Fisher, and a member of the Harbour Trust?—Yes, sir.

3502 I understand you have a statement to make?—Yes. The Newry Island Canal is about eighteen miles long. There are ten locks from Newry to the head level at Poynterpass. The head level is over three miles long. There are three locks from the head level at Tallyhoogan to the cut. There is a cut of about one mile long connecting the canal to the River Burn,

Mr. Hudson—continued

3503 It is a line that would be off the running line?—Yes. That is all they would have to do. It would be a great facility to construct a double line from here to Corrigwood. With the exception of Belfast, we send more coal over the Great Northern system than any port on their system. Belfast sends only 20 per cent more coal over their system than we do, and between Newry and Warrenpoint we send more than Belfast. This double line is a very essential thing.

3504 Is there a limited number of trains at present owing to the single line?—Yes. The distance from Newry to Corrigwood is only 3 miles.

3505 Is there any real congestion of traffic owing to the line being single?—Yes. The coal lies at Edward Street Station waiting for the passenger trains to come in before they can go out.

3506 You have no statistics on that point—the tonnage of coal that is lost here for the want of trains?—There is a gentleman here in the coal trade who will give evidence.

Mr. H. Davis, Esq.

3507 Then I gather from you that you consider a further obstacle at this moment to expeditious transit is the railway—that the railway is congested and is blocking the port?—Yes.

3508 Would it be any use to increase the port facilities without at the same time increasing the railway facilities?—I consider that if the railways were compelled to do their duty that we would have no congestion.

3509 I understand that the present railway facilities are not adequate to the trade of the port as it is?—That is so.

3510 It does not clear satisfactory to-day?—As it is working it does not clear satisfactorily.

3511 You think it is a question of working?—It is largely a question of working.

3512 You think with their present line and facilities they could clear the port and do all that is necessary?—I do.

3513 Supposing this larger scheme was carried out, do you think that there would have to be structural alterations made on the line?—There should be a double line to Corrigwood.

3514 You could not do so without doing the other?—No.

3515 They are inter-dependent?—Yes.

3516 Your statistics for 1912, 1913, and 1914 were on the whole satisfactory—they were showing a progressive trade?—Yes.

3517 Have you any reason to believe that if the port facilities were improved that you would greatly increase the export traffic from the agricultural district?—Yes. There has been an enormous increase in the area of land under cultivation. The area under cultivation has immensely increased.

3518 How was it that, with the present facilities, some agricultural produce did not go?—A great deal of the agricultural produce that should have come here went via Belfast in consequence of the delayed service.

3519 Perishable produce went to places where there were more facilities?—Yes.

Mr. Field.

3520 That applied to live stock?—Yes.

3521 Did you have a good export trade in live stock?—Yes. We have a witness here on that subject.

Chairman—continued

which connects with Portadown and Lough Neagh. The locks are 60 ft 6 in long, 15 ft broad, and 5 ft 4 in normal depth on the lowest lifts. The largest lighter that can navigate the canal is 60 ft long by 16 ft broad and carries eighty-eight tons on 5 ft 3 in draught. Three lock lifts are 5 ft 4 in, two 5 ft 7 in, three 5 ft 8 in, two 5 ft 10 in, two 5 ft 2 in, one 6 ft 4 in, one 6 ft 6 in, and all the rest slightly over. The walls of the locks are laid on wood sleepers. Four locks and part

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Mr. FISHER.

[Continued.]

Chairman—continued.

part of a high lock have stone floors—the rest are wooden.

The canal is fed from various sources, but the main supply is from Lough Shack, near Scarva, and the Cusher River through the Tandragee feeder. The canal is in fair condition, and, taken all round, will probably compare favourably with the ordinary inland Irish canal. In its present condition it has been about able to hold its own for carriage of coal in competition with the railway that runs alongside its entire distance, but this now is really the only traffic on the canal. The coal is loaded on steamers at Newry, so that the inland portion of the undertaking is entirely dependent on the sea-going portion. Some years ago there was a regular service between Newry and Portadown, and goods were shipped and discharged from and to the regular steamers at Newry to and from Liverpool and Anderson. This has disappeared. The canal is behind present-day requirements for economical and quick handling of traffic. Three suggestions for improving the canal might be stated:—

1st. The Forth and Clyde Canal might be taken as a basis, which would mean a draft of not less than 8 ft., with locks to suit and enable suitable craft with motor engines to carry up to, say, 150-200 tons. By ascending the head level about 35 ft. and adjoining levels in proportion you could dispose with seven locks and have the waters of the Ban River flowing into Newry and supplying the requisite depth in the canal. This would raise the six locks on the Newry side of the head level to be enlarged. This deepening would vastly improve the drainage of the surrounding country.

2nd. Deepen the canal by three feet, which would also mean all the thirteen locks being dealt with.

3rd. To carry on as at present and put it in the best possible condition by dredging shoals, thoroughly cleaning weirs and repairing locks, and by enlarging the Tandragee Feeder so as to get the maximum draft in the canal all the year round. This feeder rises through the Duke of Manchester's land. It is about 3 miles long. The feeder proper is a ditch 8 ft. broad by 2 ft. 6 in. deep, a stone trough 65 yards long, 2 ft. 6 in. broad, by 2 ft. 8 in. deep, and a wooden trough 60 ft. long, 4 ft. broad, and 3 ft. deep. The three sills 5 ft. 4 in. high, with their lock bottoms, etc., be lowered to give 5 ft. 7 in. draft, same as the next five. Sometimes there is only 4 ft. draft in the summer, and the importance of improving the supply through the Tandragee Feeder and the lowering of the locks is seen on the carrying of a lighter 60 ft. long by 15 ft. beam on different drafts, viz. —

ft. in.	Tons.
4 0 draft parties	60
4 3 " "	65
4 6 " "	72
4 9 " "	77
5 0 " "	82
5 3 " "	88
5 6 " "	94
5 9 " "	100
6 0 " "	110

We can divide the undertaking into three parts. That from Carrington Lough to Victoria Basin, which has kept its depth, with the exception of Victoria Basin, and which large steamers up to 3,000 tons, after lightening, can come up and discharge always afloat in Victoria Basin. There is the Inland Canal, about 18 miles long, between Newry and the River Ban. The third part is the connecting link between the other two, viz., the Ship Canal.

Without the Ship Canal, the Inland Canal could not exist, and, without the Ship Canal, the river from Carrington Lough to Victoria Basin would lead nowhere. You must have some connection between the two. The present Ship Canal was made in the days of small sailing vessels. It was not designed for steam, and the result is that the sides of the canal are steadily falling in and filling the waterway. As time goes on the process of silting in increases because the sides get increasingly undermined with the action of the steamers' propellers. The Harbour Board is loaded with inherited debt. The members pinch and save to try and meet their obligations, and there is nothing left to keep the place in order. Some years ago we built two steamers to the full capacity of

(Answer—continued.)

the then existing canal. These steamers, when the canal was normal, took from 650 to 700 tons to Newry. Gradually the canal filled in, and, within a short time, the steamers had to be lightened. At the present time our steamers are 300-400 tons, and even these, with the canal at full height, can barely with safety come up. The trustees are face to face with the fact that at no very distant date the entire undertaking from Carrington Lough to Lough Neagh may be closed for all practical purposes. Any practical man looking at the river alongside the canal wonders why the canal ever came to be made. It was forced by the then Government at the point of the bayonet upon the then Harbour Authority. The Royal Commissioners at those days were not so intelligent as in our days. At one remote period Newry was level with Belfast. Belfast Harbour was developed on practical lines. Newry Harbour was not, with disastrous results on all the surrounding districts. The only way to properly develop the district is to do now what should have been done at first, viz., clean out the river and deepen it up to the level of Newry. In my opinion there is no other way to develop and foster the large and important area served by the Newry Harbour Board. Whilst there is no other way to develop the area and increase its trade, it may be asked whether it is possible to do anything in any other direction to enable the undertaking to carry on upon the present lines and prevent the misfortune of its being closed. You have heard how the canal and its cost were forced upon us, and how the town recently acquired the concern in the hope of doing something. The present Debenture debt is about £250,000, and loans about £28,000. I think it might fairly be suggested that, when the Government of the day saddled us with this load, the present Government might relieve us of it with a repayment of some of the interest and sinking fund which we paid in past years. I am not good at figures, but I estimate that about £50,000 5 per cent. War Bonds should pay off the £250,000 4 per cent. Debentures, which with £28,000 would leave the concern free of debt. A further £28,000 should put both the Ship Canal and Inland Canal in fair order, and the net revenue should then be able to keep them up. This free grant of £106,000 would keep the waterways open in the state for which they were originally designed. I hope you will see the distinction I make between developing the country and holding on to what we have. In our trading in normal times we take grain. It is always full cargoes we deal with. At the present time we are sending coal to the West of Ireland. That is due to the war.

3522 Can you load from your steamers into the lighters?—Yes.

3523 How are the banks of the canal?—They are not so very bad. The lighters are all pulled by horses, and do not interfere with the banks to the same extent as the propellers do in the other part of the canal.

3524 Has any effort been made to use motor boats?—It is just beginning. The horse is cheaper from here to Portadown when you have a tow-path. Once you leave Portadown and cross Lough Neagh, of course the motor comes along.

Mr. Field.

3525 Are you of opinion, from your great experience of Newry, that if this canal was closed it would not alone affect the prosperity of Newry, but do it serious injury?—Undoubtedly, there can be no question about that.

3526 Do you agree with the previous witness, who said that Newry was almost equal to Belfast in the matter of sending coal over the Great Northern Railway system?—Yes. I believe a long time ago persons sending letters to Belfast used to address them "Belfast, near Newry."

3527 You attribute the great prosperity and development of Belfast very largely to the terminal facilities?—There is no doubt that the facilities at Belfast have, of course, considerably improved their trade.

3528 While your harbour has gone from bad to worse?—Yes. I don't believe that Belfast had a better thing to start with than we had.

3529 You

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MR. FISHER.

[Continued.]

Mr. Field—continued.

3529. You look upon the improvement of transport facilities here as not only an Irish but as an imperial question?—Anything that opens up the whole country would be of great benefit.

3530. With the increased agricultural production you would have a great deal more export?—Yes, and we would get it cheaper across to England if we had the facilities.

3531. Have you any experience about the want of facilities on the railway?—I can confirm what has been said in that matter.

Mr. Keating.

3532. Can you give us any estimate as to the economies that could be effected by having these facilities such as have been outlined—I mean economy in transport?—You mean if the river was deepened and steamers could come up to the town of Newry?

3533. Yes?—It would be enormous. Large quantities of grain and timber could be dealt with. The procedure is that these large steamers have to stop in Carrigrohane Lough and we have to send down lighters.

3534. The economy would be obvious?—Yes. If we could take coal in steamers of 1,000 tons we could carry it cheaper than in steamers of 300 or 400 tons.

3535. Can you give us any estimate as to the extra volume of commodities that you could import or export from Newry if these improvements were carried out?—It would be very hard to estimate that, but it would be very considerable.

3536. And you think that the improvements would be necessary in the interest of economic development in Ireland?—Yes. Here we are right in the middle of one of the most prosperous parts of Ireland, and we are seriously handicapped by the want of facilities.

3537. The development of your economic resources is hampered?—Yes, by not being able to get out.

Mr. Lindsay.

3538. You referred to the action of the Government in 1829 in forcing the directors to extend the canal to the Victoria Locks?—Yes.

3539. What evidence have you got that this drastic action was taken?—I think it is all on record. The Government consulted three eminent engineers. Two of them said that the proper thing to do was to deepen the present passage. The third man said the proper thing was to extend the canal.

3540. That is not exactly my point. I wanted to know what pressure the Government brought to bear in order to get this scheme adopted?—They were providing the money to a certain extent. They would not give the money except on their own scheme. They said, "We will give you money if you make the canal, but not if you deepen the river."

3541. You say now that the Treasury should do something to atone for the misdeeds of their predecessors?—Yes.

3542. You must have evidence that the pressure was such as you suggest?—Yes.

3543. You spoke last now of various schemes in connection with the improvement of the inland canal?—Yes.

3544. You spoke about the canal on your inland navigation. Evidence was given before us at Dublin showing that the navigation was by no means satisfactory. Do you know the Logan?—No. Our Inland Inspector is here.

Mr. FRANKLIN D. RUSSELL, Coal Merchant, Newry, called in, and Examined.

Chairman.

3564. You are a coal merchant, Mr. Russell?—Yes, sir.

3565. And you are going to give us evidence as to the lack of facilities for transport in connection with coal?—Yes. I have been connected with the coal trade in Newry for about twenty-five years, the business of which is carried on in small coasting steamers, principally about 150 tons to 400 tons burthen. Great difficulty is experienced in obtaining this size of steamer, as owners have for many years past been building steamers of a much larger capacity, giving as their reason that larger steamers can be worked much

Mr. Lindsay—continued.

3545. About the shortage of wagons on the railway. Did that shortage exist before the war?—Yes, it is an old grievance.

3546. Have you not got one as of the Great Northern directors, a Newry man?—Yes.

3547. Have you appealed to him?—Yes, we saw the directors, but they said they had not enough of wagons.

3548. What did they say before the war?—The same thing.

3549. You are not alone in that complaint?—No. We rather think that Belfast gets a little more fair play than we do.

3550. About the doubling of the line to Goughwood, do you think that that would make a material difference?—Yes. I think after the war the railway company really intend to do it.

Mr. Wilson-Fox.

3551. You mention schemes for improving the canal. I gather from that that you don't agree with the evidence given by Mr. Lamb, who says that the chief value of keeping that canal going was to keep down railway rates?—It would do that, but I am looking at the thing simply as a Harbour Trustee.

3552. Mr. Lamb did not seem to think it was necessary from the point of view of carrying traffic because that was carried by the railway, but because if the canal were not there the railways would charge more for traffic?—We would be very badly off in Newry, if we had not that inland canal.

3553. Would not the money be better spent on the railway?—No, not from the point of view of a port. It would be better to put our inland canal in order, so as to compete with the railway.

3554. Do you think it would be a commercial proposition to put money into both. Can you make them both pay if you spend money on them?—If we spent money on our inland canal we would make it pay. At the present time it is able to pay its way, and if it were improved you could send larger barges down the canal.

3555. It would pay the cost of doing it?—Yes.

3556. If the railway were doubled would it not pay them to take the goods away from the canal?—We never pressed that the railway should be doubled, except from Newry to Goughwood. The traffic joins the main line at Goughwood.

3557. Then you consider that it would be a commercial proposition both to improve the canal and to have a double line of railway to Goughwood?—Yes.

3558. You think the traffic would justify both?—I do.

Mr. Wilson.

3559. I take it that you favour the deepening of the river to make it entirely navigable, and abandoning that portion of the canal?—Yes.

3560. That is your view in regard to present and future requirements?—That is right.

3561. With regard to the railway traffic, can you give me the average number of wagons that would be loaded here in normal times—how many wagons would be loaded per day?—Mr. Farns has gone into that very thing.

Chairman.

3562. He will give evidence in a few minutes.

Mr. Field.

3563. Have you any facilities, Mr. Fisher, for exporting live stock?—We have indifferent facilities.

Chairman—continued.

more economically, and the result is that steamers suitable for Newry are becoming increasingly more difficult to obtain. These little steamers suitable for this port have an average speed of seven to nine knots per hour, and in consequence nearly always miss the next tide here when coming from the Mursey and Cumberland ports, and the result is that they are obliged to anchor in Carrigrohane Lough for seven or eight hours awaiting the next flood tide before coming to Newry. The same condition of affairs very often occurs when clear of cargo, being too late to lock out, in which case another seven or eight hours are lost waiting.

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Mr. RUSSELL.

[Continued.]

Chairman—continued.

writing on the coming of flood tide. As a result, merchants have to pay about 6d. per ton extra freight, which is a serious matter in ordinary times, and very detrimental to the trade of this port. As years go past I am convinced that unless something is done to improve the waterways, Newry, as a distributing centre, will cease to hold the position in the future it has done in the past, as the whole tendency is for a larger type of steamer, and the port then owners select for the acceptance of freight is that which offers the best chance of quick despatch. Owing to the geographical position of Newry, it should be in a position to serve one of the largest industrial and most populous agricultural districts in Ireland. The total quantity of coal imported to Newry in the year immediately before the war was, I understand, 216,730 tons, which is creditable, taking into consideration the adverse conditions I have mentioned; but if we had deep water to admit of large sized coal steamers arriving and leaving on all states of the tide I have no hesitation in saying that the coal business could be doubled, probably trebled, that is, provided the Great Northern Railway Company provided sufficient rolling stock to meet the requirements of an extension of business. Whatever political differences exist in Newry there is one thing we are absolutely united about and that is, that the Imperial Government have not done sufficient to improve the waterways of Ireland as a whole and Newry in particular. The coal merchants, time and again, have approached the Trustees of the Newry Port and Harbour Trust with a view to getting the existing waterways improved, but are always met with the same answer—"No money! No money!"

Mr. Hudson.

3566 Can you tell me whether the Great Northern Railway have laid down any regulations requiring merchants to give notice for wagons that are required? No. We simply give them good long notice when we require the wagons, but unfortunately sufficient wagons don't arrive.

3567 What is your usual notice?—Three to four days, and sometimes longer; never less. We generally give a week's notice.

3568 Was 1914 your best year for the import of coal?—Not so far as I know. I took the financial year immediately preceding the war.

3569 In your opinion, if better facilities were offered for disposing of the coal to inland places requiring it, do you think that the coal trade would improve here?—Yes, I think so, certainly.

3570 Are you interested in the scheme that has been put forward by the previous witness?—Yes.

Mr. FREDERICK FERRIS, Coal Merchant, called in; and Examined.

Chairman.

3584 You are a coal merchant residing in Newry?—Yes, sir.

3584A You have some evidence to give as with regard to the lack of transport facilities?—Yes.

3585 Are you in agreement with what Mr. Russell has said?—I am. I would like to say that from the position that Newry occupies geographically it is more favourably situated than any other port on the east coast of Ireland as a distributing centre, being the natural port of supply for the following counties.—Anagh, Down, Fermanagh, Monaghan, Tyrone, and Cavan. The two immediate competing ports are Belfast and Dundalk. The former, being the terminus of the Great Northern Railway, is not so favourably situated as Newry as a distributing centre over this company's system, but, being a port where steamers can arrive and sail at any state of the tide, it derives an advantage from cheaper sea freights that enables it to compete for business successfully in districts that otherwise would be served from Newry under similar conditions. This advantage to some extent nullifies the railway rates that are in favour of Newry in the counties for which it is the natural outlet to the sea. The advantage that Dundalk derives from lower rates to districts on the direct line of railway from that port to the west is counterbalanced by the extra cost

Mr. Hudson—continued.

3571 From a development point of view?—Yes.

3572 You think, if the scheme to deepen the river and abandon the canal were adopted, that it would be more preferable?—It would be a great boon to the whole community.

3573 And would be generally accepted?—Yes, unanimously.

Mr. Lindsay.

3574 You said just now to the Chairman that the Imperial Government neglected the waterways of Ireland?—Yes.

3575 Are you familiar with the Shannon?—No.

3576 They did not neglect that, but the traders neglected it, I may tell you. Do you send coal by the inland canal here yourself?—Yes.

3577 Do you find it working fairly satisfactorily?—I don't do much in the inland traffic. With regard to the Great Northern Railway I would like to say that they treat Newry very badly. We have taken the matter up time and again and sent deputations to the directors. The chairman of the company is a very nice, smart man, but nothing happens. I attended a meeting of the shareholders and put the matter before them. The directors made the excuse that the shortage of wagons was due to the war, but before the war there was also a shortage. On one occasion we blocked a Bill which they were promoting in Parliament, in order to bring them to their senses.

Mr. Field.

3578 That's the way to do it? They told me that the Bill was to obtain money to enable them to raise more stock, and that if they got that money it would enable them to build more rolling stock, and that if we blocked the Bill it would prevent them. We withdrew our opposition, but the result was not any better.

3579 Is it your opinion that the railways are, like the Greenanagh giving lots of sympathy, but little help?—We have practically no competition against the Great Northern here. They have a monopoly of traffic here.

3580 Is not the canal an opposition?—Yes, but only in a small way.

3581 Is it your opinion that if the improvements were carried out it would not only benefit Newry, but the whole surrounding district?—Yes.

3582 And that you would have more exports and more imports?—Yes.

3583 Is it your opinion that the Harbours and Canals ought to be looked after by the Government as Imperial concerns?—Yes, I think it is their duty to do it.

Chairman—continued.

of putting cargoes on rail and the additional rate payable to the Dundalk and Greenero Railway for traffic passing over their line before being transferred to the Great Northern Railway system. The schedule of rates from Newry, Dundalk and Belfast to the different towns served by the Great Northern Railway and adjoining railways shows at a glance the position this port occupies. I hand in a copy of these rates for the information of the Committee. The inland canal joins the River Bann at Portadown, and serves a large agricultural and industrial district, passing through Poyntress, close to Yandrage and Gifford, through Scarva to Portadown. So far as the coal traffic is concerned it is largely needed of, and has, no doubt, been the means of keeping down the railway rates to the aforementioned towns. Formerly a considerable general cargo trade was sent over it from the cross-Channel steamers; but this has practically ceased—probably under the system of through rates arranged by the railway company. To deal with the coal traffic, there are fifteen barges owned in Newry, thirteen owned in Portadown, and six in Collieland, with a carrying capacity of sixty to eighty tons each, on 5 feet draft. Two of these barges are driven by motor power and the remainder are towed by horses. The Collieland Canal is four miles in length and is entered

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Mr. FISHER.

[Continued.]

Chairman—continued.

from the Blackwater River a few miles from Lough Neagh. There are eight locks on this canal of the same dimensions as those on the Newry Canal. Prior to the war a considerable quantity of coal was sent from Newry to Coleraine. The Ulster Canal is entered from the Blackwater River at Charlemont eight miles from Lough Neagh. It connects with Lough Erne, but has been allowed to become derelict for a greater part of its length, and lighters can proceed no further than Battleford Bridge, two miles above Banbury. Up to some years ago there was a regular traffic so far as Clones, but this has been diverted for some time to the Great Northern Railway Company. The locks on this canal are much smaller than those on the Lagan and Newry Canals, so that it was only possible to send lighters of small carrying capacity along it. In Lough Neagh coal is forwarded to Keshigo, Ballyroan and Newport Trench, but for some years the Lagan Navigation Company have penalised lighters proceeding from Newry across Lough Neagh by charging them double the towage Belfast lighters pay for the same journey. This has tended to divert traffic to Belfast. The total quantity of coal sent over the Inland Canal to the different places mentioned amounted to 26,400 tons in 1914, which shows an increased tonnage over the previous year; but this is capable of further development, provided a more uniform depth of water was available. At present, during the summer months, the sea-going canal draws supplies from the Inland Canal, which, in the event of deep water to the port would be dispensed with, and the carrying capacity of the canal would thereby be developed to a much greater extent. The sea-going canal has already been dealt with by other witnesses. That length from the headhouse to the old locks is not suitable for steamers over 500 tons burden. Shipowners who have been trading to the port for over thirty years now refuse to send steamers of over 300 tons, and lately have been threatening to discontinue sending any steamers, owing to the condition of this stretch of the canal. It would require the expenditure of a considerable sum of money to make it suitable for steamers of 500 tons burden; and even after this expenditure, it would cost a considerable sum in up-keep, as originally it was never intended to be utilised by steamers. To give the district served from Newry the benefit of its geographical position, a scheme of deep water to Newry, by deepening the Newry River, is the only feasible plan. As a natural sequence, the result would be lower sea freights and increased volume of imports, with a corresponding benefit not only to the Port of Newry, but also to those districts for which it is the natural port. Commotions that have set from time to time inquiring into the development of harbours and canals of Ireland have had, so far as this port is concerned, negative results. It is to be hoped that as a result of the inspection of the harbour and its approaches by the Committee, who would not have failed to note its natural advantages, a measure of Government support will be forthcoming to place it in the position as a distributing centre that its situation entitles it to.

3586. Your evidence is very interesting. Do I understand that at present Belfast and Dundalk have been getting trade that legitimately belongs to Newry?—Belfast has. We can compete successfully in Dundalk district with the Dundalk merchants.

3587. It would take a good deal of money to make the canal suitable for 500-ton steamers. Would you be satisfied with a 500-ton steamer?—That would be impossible, because there is an aqueduct at the Albert Basin that would not permit of it.

3588. Why could it not be deepened?—There would be some difficulty with the aqueduct, under which the drainage of the West Ward Basin, quite close to the Albert Basin.

3589. You said that the Lagan Navigation have penalised lighters proceeding from Newry across Lough Neagh by charging them double the towage Belfast lighters pay for the same journey?—Yes.

3590. Can you produce proof?—Yes; I have the schedule of towage rates across Lough Neagh. For some years they have doubled—and in some cases trebled—the towage rates on lighters proceeding from Newry. They charge Newry lighters £2 6s. to Col-

Chairman—continued.

erland and, according to their schedule rate, it should be only £1 2s. They charge just double the schedule rates. We send a lighter to Ballyroan in the County Down side of Lough Neagh, and the towage rate, in the ordinary way, should be about £3 15s.; and they charge £7 15s. 6d. I do not know the reason of it. I think it is done by way of retaliation. The Lagan Navigation Company has the control of the towage on Lough Neagh. That, of course, militates against us in Newry sending coal there, because it amounts to practically a 1s. a ton more than it should be. The advance of the motor lighters that have been put on will, in all probability, increase the traffic from Lough Neagh into Newry, because we can dispense then with towage.

3591. You stated that formerly a considerable general cargo trade came over by the cross-Channel steamers?—Yes.

3592. And you state that this had practically ceased, probably under the system of through rates arranged by the railway company?—Yes.

3593. Does that mean that the railway company makes a through rate from a point in England to the interior which is lower?—There was a considerable amount of general cargo come across from England, and it was transhipped. That has ceased for some time. That goes by rail now.

Mr. Field.

3594. Are you certain that discrimination is exercised in reference to the towage rates in favour of Belfast as against Newry?—Oh, yes; I have the proofs here.

3595. Did you take any action in reference to it?—We wrote to the Lagan Navigation about it.

3596. Did you consult the Newry Authority that has the control of the canal here?—I cannot say that we did.

3597. May I suggest to you that if the Authority suffers by reason of the fact that their traffic is interfered with, owing to the discrimination being exercised against them, they should take it up?—They have no control.

3598. There ought to be equality of treatment?—Yes. I have told you the treatment we get in Newry.

3599. You think that the river is the proper thing—not the present canal?—Yes.

Mr. Keating.

3600. Can you give us any evidence as to the volume of imports and exports that would be increased, in the national interest, if these improvements were carried out?—It is very hard to give an estimate. I would say, roughly, that, if deep water was an accomplished fact that the imports and exports could be doubled and, in all probability, trebled by increased facilities.

3601. Will you be able to give us some approximate figures, beyond a general expression of opinion?—I can only speak for the railway business. We would be able, with deep water here, to have a decreased rate of 1s. a ton, and that is, would be in our favour.

3602. Will you consult your fellow traders, and try to give us approximate figures?—I think we can arrange to let you have these figures.*

Mr. Lindsay.

3603. When you hand over a lighter to the Lagan Navigation, where do you hand it over?—Portadown.

3604. Do you hand over more than one lighter at a time?—Sometimes one and sometimes half a dozen.

3605. What would the normal condition of things be?—About three lighters at a time.

3606. How far is it from Portadown to Ballyroan?—About twenty-two miles.

3607. How far is it from Ebley Cut to Ballyroan?—About eighteen miles, I should say.

3608. It is only about ten. It might be twelve, but not more?—My objection to the towage is that the Lagan Navigation Company have issued a schedule of towage rates, and that they have not adhered to these rates.

3609. They may have found in practice that the towage was much more expensive to do. Besides, your distance is much longer—back from Portadown to Ballyroan?

* Figures not furnished.

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Mr. FERRIS

[Continued]

Mr. Lusk—continued.

Ballyronan?—I would expect that they would adhere to the rates that they laid down. That is my complaint, that they have not done so.

3619 They didn't enter into a contract with you?—They issued a list of rates.

3621 When did they begin to alter the rates?—I think it has been going on since 1912, although that is the towage rates they issued to us.

3622 You find the inland canal satisfactory?—Yes, except in the summer months, when the draft of water is reduced considerably.

3623 In Dublin Mr. Stoddingham advocated the State ownership of the Newry Canal. You don't think, if the State took it over, that there would be any considerable improvement in the management?—A Committee on behalf of the Government have taken it over, but that is only temporarily.

3624 He was advocating a permanent thing. Do you think the present management is fairly satisfactory?—Yes, they take a great interest in the business.

Mr. Wilson-Pear.

3625 Have you found that the Government control during the war has been better than the local control?—I would prefer to work under it?—We would benefit financially from the Government having control.

3626 Do you find that the Government are running it better?—It is the local people that are looking after it. It has not made any change in the management.

3627 In 1914, before the war, what was the average price of coal landed here from steamers?—About 15s for steam coal and 22s. for the best house coal.

3628 And I suppose in the interior it would be practically the same, plus the extra cost of carriage?—Yes.

3629a. Do you think that a simple fall in price of a ton would have a great effect in increasing the consumption?—It would have some effect. I don't say that by that reduction we would be able to create a new business altogether, but there is a considerable quantity of coal that should come through Newry to districts that it should serve that does not come through it, and which we would undoubtedly get if we had the facilities for taking in large steamers.

3630 A large proportion of the increase would be by diverting coal from other ports?—Yes, and an increased consumption of coal.

3630 In your own trade, do you send any large proportion of orders to the country by the canal?—We have six barges on the canal constantly employed.

3632 What does that represent?—Sixty to seventy tons each. It would represent about 1,000 tons a month.

Mr. JOHN STOKES, J.P., representing the Dundalk and Newry Steam Packet Company, called in; and Examined.

Chairman.

3635 You represent the Dundalk and Newry Steam Packet Company?—Yes.

3637 Then you have some evidence to give us regarding trading from Newry?—Yes. The Dundalk and Newry Steam Packet Company, Ltd., have been trading for over forty years, and entirely from Newry, having left Waterpoint in 1878. The waterway was then much better in river and canal, and they built steamers to suit the locks for Newry trade. Both the Newry vessels had to be shortened beyond what their beams would justify to fit the locks, and could have been 15-20 ft longer had the locks been suitable. They had also to be constructed for canal depth. For the past twenty-five years the canal has not been dredged. Tons of stones, the remains of the side pitching that had fallen in, have been taken out by divers from time to time about the banks and the worst places, but large quantities still remain embedded in the accumulated mud, resulting from the decay, and breaking down of the canal banks. To meet the decreased water, the surface level has had to be kept up to the highest point possible, but, even with this, vessels cannot come up drawing anything more than 15 ft. 3 in. aft. All over the summer a large pumping gear has to be kept running to keep up the level, and this even is not sufficient, as the level is frequently down four and six inches, and occasionally much more. Even at top level the Steam Packet vessels cannot use more than 40-50 per cent of their 0178.

Mr. Hudson.

3622. You mentioned, I think, the large amount of coal that was imported to this harbour in 1914?—215,000 tons, I think it was.

3623 I think you mentioned in your evidence that 35,429 tons was sent inland by canal?—Yes. I can give you the figures by rail: 85,738 tons went by rail. I have the figures for the years 1912-13-14. I hand in that return.

3624 85,738 tons went over the Great Northern for the year 1914?—Yes.

3625 Have you any difficulty in getting wagons from the Great Northern?—There is always a difficulty. I think it is due to the fact that the coal traffic is increasing on their system, and the rolling stock is not increasing in proportion to the increase in this traffic.

3626 They are not capable of coping with it?—No; and during the war it has become worse.

3627 You heard the project put forward in regard to the dredging of the river in order to bring a large type of steamer up to Newry?—Yes.

3628 In your opinion, do you think that that project is generally approved by the people?—Yes, wholeheartedly.

3629 You think that is a chance that they would like to see adopted?—Yes.

3630 Have you any complaint to make in regard to facilities at the docks?—If you suggested that the Great Northern might put up a wharf on the east side for the discharge of steamers, that would be an admirable suggestion to adopt. There is a railway bridge at and cranes could be erected. Some of the steamers are not adapted to discharge by their own gear. On the east side we would require facilities for the discharge of cargoes of coal if the imports were increased, because on the west side there is very little accommodation.

3631 Is there any coal carted from here?—Yes, to the different yards on the quay.

3632 Is it carted from here inland?—No, except to country districts.

Chairman.

3633 These figures that you have handed in—are they official?—Yes, from the Great Northern Rail way.

3634 It seems that Newry and Waterpoint combined sent out more coal than Belfast?—Yes.

3635 In 1913-14 Newry and Waterpoint combined shipped more coal than Belfast?—That is so, over the Great Northern Railway.

Chairman—continued.

cargo capacity to get up and have often even with this medium of cargo to lighten their vessels to enable them to berth at the quay. The outside portion of the canal, i.e., from old to new locks, is fairly wide and straight and is deeper than the town portion. The latter is very narrow, in parts, in addition to being silted up, and has two awkward bends. Between the silted and stones, the passage of a steamer of any considerable size, especially round the bends referred to is not only difficult but dangerous to hedges and cottages. Steamers have to proceed inwards and onwards at a snail's pace—the passage to the locks from Newry, about 3 miles, requiring an hour. Passing through locks is tedious and slow, and the condition of the river for a mile below the locks, through silted, impedes the progress or stops especially, or when the tide has fallen. The average time taken up in traversing six miles from Newry to say, almost of Waterpoint, is 2½ hours, or in two trips, in and out, at much time as 50¢ and coal consumed, as would bring the steamer to Liverpool bar. It is not possible to widen the canal, and the decay of the stone pitching will naturally continue. Dredging might be done, but this may further hasten the destruction of the banks. On the east side for a considerable distance, the stone pitching has gone, and the eastern bank is eaten out from 6 ft to 8 ft, or even more. In parts this bank is very narrow already, and the wash from steamers is still exercising a deleterious influence.

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Mr. STOKES.

[Continued.]

Chairman—continued.

once. Since the replacement by steam of the old sailing vessel trade, the canal has been going to the bad, as I find from old Navigation Co.'s notices of sixty years ago, that there was then 25 ft. up to Newry. Now there is about 13 ft. or 15 ft. 3 in., and this is only possible by keeping the surface at a higher level than it was, and goes to show that at least 5 ft. of mud and stones have accumulated in the canal bed, and along the banks to a very much greater extent. With deep water to the town the general shipping trade would be greatly developed. Steamers such as those referred to could sail at more regular hours, as with 10 ft. in the channel at L. W.—half-tide would permit them to enter or sail, and the time saved in getting to or from the bar would enable a steamer to make three trips weekly instead of two. The steamers could be loaded to the full capacity, and larger ones employed in the service, which would greatly convenience import and export, avoiding short-shippments, and the live stock trade would be largely increased, as stock has now to be sent to other ports for want of accommodation, and infrequency of departures. What has been said of the Steam Packet fleet would apply to all shipping of a similar or larger capacity. Not only the local town trade, but the inland import and export shipments would be developed, and if a direct rail connection were made to the east side of the docks, where the Great Northern Railway runs close by, a ease of delay and expense in transhipping goods, or live stock and perishable cargo, would be avoided, and business would be still further stimulated. A line along the proposed wharf, and docks, with suitable cranes for discharging, is an urgent necessity. For the existence and development of Newry trade the importance of deep water is unquestionable. Deep water ports have advantages that have enabled them to secure and monopolize trade that should belong to and be catered for by the smaller ports. Towns could be more equally divided, less congestion on the one side, and resulting in a more even distribution to the natural outlet of the district. The port of Newry is the natural outlet for a wide district, and its trading demands increased accommodation. Under present conditions it is not possible to have a better cross-Channel service. Larger steamers are deterred from being employed by the locks and the state of the river and canal. Sailings have to be fixed to suit tides, and the departures vary from noon to midnight. Railway connections are often missed, and live stock and cargo can't be as efficiently catered for as they deserve. The Steam Packet Company handles yearly about 30,000 tons of general cargo. Last twelve months' live stock were: Cattle 10,000 and sheep 20,000. These are below the average figures but, given deep water and the sailing facilities which would accrue from it, these figures might be doubled. In bad weather or fogs outside, a delay in the passage of a steamer coming to Newry, which now means missing the tide to enter the locks and a consequent loss of twelve hours' work, would, if the channel were improved to a depth of, say, 10 ft. at low water, permit the steamer to come to her berth, and be cleared instead of lying idly at anchor in the bay.

3638. Do you agree with the previous evidence that has been given?—Yes, entirely, and with regard to the inland waterway traffic I listened to Mr. Ferris's evidence with great interest. I have been all my life concerned in the general carrying trade. We know that the inland traffic is dependent entirely upon an improved waterway. In connection with the Steam Packet Company I have had many opportunities of seeing how far trade has been kept back at Newry for want of facilities and owing to a deteriorating waterway—a waterway that might have been sufficient for the traffic of years gone by but has long since become obsolete. I am confident that an improved waterway is essential to Newry, which is the outlet for an immense district. The district is a very large one, and includes the Counties of Antrim and Down, which are amongst the best cultivated in Ireland, but the traffic cannot get as out. Our steamers are unable to bring more than 40 or 50 per cent. of their tonnage capacity in the existing canal, and sometimes even that small load has to be lightened. All over the summer the pumping plant has to be kept going to keep up the level. For our trade we cannot bring in large steamers to Newry

Chairman—continued.

3639. What do your steamers draw?—We cannot bring them up drawing more than 13 ft. 3 ins., and that amounts only to 50 per cent. of the cargo we could carry. We do a large trade in general cargo and cattle. We have to make connections by the train for want of a proper waterway.

3640. Would you increase the size of your boat if you had more water?—Yes, and if there was a longer lock.

3641. Would that mean that you could afford to carry them for less money?—Yes. The cargoes that we cannot carry we are obliged to send to Belfast or to Dublin occasionally. There would be trade enough to keep the boats running every day.

3642. The bigger the steamer the cheaper the cost of running it?—Yes.

3643. Can you get sufficient cargo to justify a bigger boat?—I think we could. I think the trade would warrant that. We handle in the year about 36,000 tons of general cargo, and we are not able to accommodate it all. In connection with last year's cattle trade, which was hardly up to the average, we had about 10,000 cattle and 30,000 sheep. We could have carried more cattle and sheep if we had large boats. These had to find their way elsewhere.

Mr. Wilson-Fox.

3644. What are your facilities for discharging your general cargo here?—We discharge with the ship's winches, but we are deficient in not having a more intimate connection with the railway—that is, we have no siding, although the Great Northern Railway is close by and goods have to be carted from the extreme end of the town, and cattle have to be driven down.

3645. What efforts have you made to get sidings?—Application was made by us in connection with the Navigation Company to the Great Northern Railway, and the objection was that the limits of the station prevented a connection being brought out on the quay. The place is narrow where our berth is, but under the projected scheme a wharf could be provided which would admit of the railway communication being made. That would be a great saving to consignees and shippers of cargo.

3646. Would that be a wharf constructed of timber?—No, it should be of stone or concrete. We propose in the scheme that the river be deepened to ten or twelve feet, that there should be a connecting lock large enough to turn ships of 300 feet, and along the side of the river to have a wharf, and at that point it would be convenient for the railway company to have a siding.

3647. And put up sheds?—That might be required.

3648. At present you say that you have to discharge the cargo with the ship's gear?—Yes.

3649. Have you any cranes on the quay?—Yes, six heavy weights, but we discharge with the ship's winches. We put the cargoes into warehouses. Goods for the interior have to be carted to the Edward St. Station, over a mile through the town.

3650. That is a serious drawback?—It is.

3651. Have you formed any idea as to whether the present canal could be deepened and used to suit your vessels?—I don't think it could. Situated as it is it is hemmed in. If it were deepened any more than it is, I am afraid it would injure the banks which are already giving to some extent. Then there are awkward bends that it would be difficult to take out. If it were deepened the existing locks are too short for the shipping. They were made seventy years ago, but to-day they are behind the times.

Mr. Lindsay.

3652. The lengthening of a lock is not a very tremendous matter. Is the present lock wide enough?—It is fifty feet wide. It would take one of our boats.

3653. It is quite ample?—Yes, for one boat.

3654. The bigger boats could not get up here?—No.

3655. Do the rails on the dock belong to the railway company?—Yes.

3656. They own them?—They do. The Trust gives them permission to put the lines there for the accommodation of the port.

3657. Has

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Mr. STOKES.

[Continued.]

Mr. Lendy—continued.

3657. Has the Steam Packet Company any special arrangement with the Trust as to the payment of dues?

—We compensated the dues for an annual amount.

3658. You pay a regular fixed sum?—Yes.

3659. Was that arrived at after the experience of some years?—Yes. When we were trading up to Warrington about 1870 we were invited by the Navigation Company to come to Newry, and we paid them £1,100. After the river was deepened they got on £500 more. Quite lately they added £200 more, so now we are paying £1,800.

3660. That is a fixed sum each year?—Yes.

Mr. Kintley.

3661. Do you confirm the opinion expressed by the other witnesses that it would increase the national resources of the country if this improvement was carried out?—I believe most decidedly it would. I know a manufacturer who assumed he would get down more plants and enlarge his present premises if there was a better service. He is obliged to send his goods elsewhere. He would enlarge his premises if the facilities were here.

3662. You said that you could not utilize the capacity of your steamers fully owing to the limitations of the river?—That is so.

3663. What cargo do you take back?—We take seed potatoes, butter, eggs, linens, yarns and perishable cargo, some of which we often had to leave behind, and flax and cattle, of course, largely, and oats and meal.

3664. You could get much larger supplies of these commodities?—Yes, we have to refuse cargo.

3665. That is the point that I wanted to emphasize—that in your judgment the national capacity is limited by the limitations here on the river?—It is undoubtedly.

Mr. Fidd.

3666. There are several manufacturers in the town who export goods?—Yes.

3667. Have you been hampered in this export by the conditions of the navigation?—We have.

3668. I observe that there is a large pumping engine?—Yes.

3669. I understand that it is to provide water for the canal in the summer time?—It is.

3670. What about the live-stock trade?—We could do a larger live-stock trade if we had better facilities.

3671. About how many heads do you carry?—I can give you the figures for the year ended July last. They are 10,000 cattle and 30,000 and odd sheep, without counting pigs or other animals.

Mr. ROBERT KERR, J.P., Proprietor of the Newry Flax-Tow Spinning Mills, called in, and Examined.

Chairman.

3672. You are the proprietor, Mr. Kerr, of the Newry Flax-Tow Spinning Mills?—Yes.

3683. And you are going to tell us the difficulties that you suffer from owing to the lack of proper facilities for transport?—That is right. For a considerable number of years past I have suffered a good deal of inconvenience owing to the inability of the Dundalk and Newry Steam Packet Company being unable to cope with my traffic with Scotch ports, Glasgow and Ardrossan, but principally Ardrossan. I have a large traffic to and from Scotland in flax-tow and open yarn, 1,500—2,000 tons yearly of tow coming from Russia, Belgium, and Holland, and about 1,000 tons of yarn. This tow comes across Scotland, and when it reaches Ardrossan the Steam Packet Company are unable to ship it, owing to want of tonnage and not having daily sailings, and the traffic often got damaged lying in wagons at Ardrossan. Further, owing to the want of daily sailings and uncertainty of sailings advertised, my Scotch customers complained of delay in delivery, and withheld orders because of my inability to deliver promptly, and I suffered much inconvenience as well by delay in the inward traffic of tow. Owing to these difficulties, which were getting worse year by year, I was finally compelled, very reluctantly, to abandon the Dundalk and Newry Steam Packet Company and bring all my traffic via Belfast by the Ayr Steam Shipping Company, from whom I get an excel-

Mr. Fidd—continued.

3673. Could you have taken more if this proposed improvement had taken place?—We could.

Chairman.

3674. Do you think you would get them?—I am positive of it. We have to reduce them.

Mr. Fidd.

3675. Your export of cattle is limited owing to the limited facilities you have?—Yes.

3676. You stated that you would be able to put on larger steamers?—We would.

3677. Is it your opinion that it would be a bad plan to try to improve the canal and not deepen the river?—There is no question about deepening the river. I would rather spend the money on the river.

3678. You said something about the want of railway facilities on the east side?—Yes. Coal only is discharged on the west side. We have no railway communication on the east side.

3679. You believe that if this improvement were carried out it would enable you to have a greater export and import trade—an increased export trade by reason of the fact that there is more land under tillage and increased import owing to increased facilities?—Yes.

3680. You look on this improvement as a national matter?—I do, sir, entirely.

Mr. Heddes.

3681. You have told the Committee that, in order to facilitate trade, there should be a railway siding put in at a certain place from the running line into the wharves?—Yes.

3682. Could you tell me what volume of traffic you would give the Great Northern Railway if that siding were put in?—That would depend on the trade in the future.

3683. Take it now—say 1914—that would be normal?—I cannot give you the number of wagons because our cargo is general.

3684. Can you give it in tons?—I suppose it would be 150 tons a week.

3685. On an average?—Yes, but I may be wrong. I have no figures by me. I know the trade we have is not at all what we should have. We should have far more of this kind of traffic that now goes to other routes.

3686. You would have inward as well as outward?—Yes.

3687. Could you get to the Great Northern on an average a hundred tons a week?—I think these would be, or out.

Chairman—continued.

lent daily service and prompt deliveries, and consequently I am now giving satisfaction to my Scotch customers. This means to me a very considerable increase in freight charges, the inward and outward traffic costing me about 12s. 6d. per ton more than by the Dundalk and Newry Steam Packet Company via Ardrossan, and I am therefore handicapped to that extent with my competitors, the Scotch spinners, whose business is the same as mine—dry spinning. I may say here that my concern might be termed a Scotch mill planted in Ireland. It is the only wholly dry spinning concern in Ireland, except a small one in Co. Antrim. I have a considerable traffic in other commodities as well for the running of the business—coal, for instance, amounting to about 2,500 tons yearly. I have a large stake in Newry, and am intensely interested in the progress in every way, being about the largest ratepayer and about the largest wage-distributor. I have no doubt whatever that the progress of the town is greatly retarded because of the want of deep water to the town, daily sailings, and cheaper transport. Newry is a great distributing centre for trade to the North of Ireland. It has a natural waterway into the town, and the future of the inland canal depends on deep water to the town. I am absolutely convinced that if above facilities are granted Newry would advance by leaps and bounds, and the surrounding districts that it would feed would benefit as well. New industries would

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Mr. KERR.

[Continued.]

Chairman—continued.

would be attracted to it and present industries extended. For some time past I have been considering an extension of my own industry, but owing to inefficiency of female labour it would be imprudent of me to attempt it, but if the improvements suggested were carried out new industries for men would undoubtedly follow, providing female labour as well, and encourage capitalists to enlarge their present works. In the near future, when the urban council will get possession of and realise the funds left to it under the Murphy Legacy, for paying off the debts of the town, Newry will be in the enjoyment of low rates and cheap gas, possibly lower than any town in the North of Ireland. This will attract capital also, and if the facilities asked for are obtained, which I sincerely trust the Commission will recognise, there will be a great future before Newry.

3692. You have given us a very clear idea of the difficulties in the matter of transport. You mentioned that if suitable transport facilities were provided that a national benefit would arise?—Yes. If we got deep water to Newry, fresh industries would be established. I would extend my own business for one. Some particulars on that matter can be given by the Chamber of Commerce. It would be well to ask them to send you particulars on that head. What I am obliged to do is to send all my traffic out of Newry. I did not want to leave the Dundalk country, but I was compelled to do so owing to want of facilities. Deep water to the town is the main thing to keep before your mind. The cost would be a small thing compared to what we are spending now on the war—about £200,000 an hour.

Mr. Lindsay.

3693. Supposing this deep water was brought up, do you expect that you would get a daily sailing from Ardara?—Yes.

3694. Do you believe there would be sufficient traffic?—Yes.

3695. How many sailings were there before the war?—Two weekly.

3696. And two from Liverpool?—Yes, I think there would be an enormous increase in traffic.

Mr. ROBERT BREAKIE, Manager to Mr. Robert Sands, Millowner and Grain Merchant, Cherry Mills, Newry, called in; and Examined.

Chairman.

3706. You desire to give us some evidence, Mr. Breakie?—Yes, sir. As importers of direct cargoes of grain for milling purposes to Newry, the difficulties with which we have to contend are numerous, and in stormy weather impossible to overcome. In the first place, we would mention that steamers of 3,000 to 5,000 tons and upwards have to anchor in Carlingford Lough, twelve miles from Newry, and discharge part of their cargo into barges. When this is done the steamer proceeds up the river to Victoria Basin, ten miles from Newry, where the discharge has to be completed. There is neither quay nor wharf at the Victoria Basin, and in consequence of this the discharge has to be done in the river with all the difficulties and less attached thereto, and at present the mud has so accumulated that at low water a large vessel would, we fear, be on the mud instead of afloat. One of the difficulties to which we would refer is the fact that we have to convey the men who discharge, weigh, and superintend the whole work of discharge by horses or motor cars from Newry to Carlingford Lough, and to the Victoria Basin, and put them aboard by means of small boats, or in rough weather we have to hire a small steam launch. In good weather this is not without risk, whereas in stormy weather it is only by the closest supervision that the work can be carried on without loss of life. To this must be added the enormous loss of time driving twelve miles and waiting for boats to get aboard, together with the loss of profit, owing to spillages, which always takes place when unloading is done in an exposed position, whether in lough or in river. Grain cannot be discharged in wet weather, and it has happened that, notwithstanding our trouble of getting aboard, we might only get a few hours' work done each day. Our next difficulty is that of providing lighters to carry the grain from the steamer to our mills, which in

Mr. Lindsay—continued.

3694. It is a very big jump to increase from two sailings to six weekly?—It would take time.

3695. You spoke about new industries being started. You suggested that some would be started if there was deep water to Newry?—Yes. We had a foundry in Newry in my young days. It is gone.

3696. Would you say that it is gone because of lack of transport facilities?—I can hardly say that.

3697. I was wondering as to whether you could make any tangible suggestion as to what new industry could be established?—Leather and soap.

3698. I was thinking of industries employing men?—Leather is one.

3699. You have not given much thought to the particular industries that could be established?—No, but I have no doubt in my mind that if proper shipping facilities could be had in Newry, by way of deep water to the town, the flax, spinning, weaving, and granite industries would increase and new ones, such as woolen, dead meat, and leather, would follow.

Mr. Field.

3700. What was the "Murphy" legacy? Is this a joke or is it earnest?—It is earnest. A gentleman named Murphy died in the town, and he left all his property to the town to pay off its debts. He left something like £200,000. It must be applied to paying off the debts of the town, according to the will.

3701. You spoke about a foundry being in Newry formerly?—Yes.

3702. Is there iron near here?—No.

3703. You would have to import iron?—Yes.

3704. About the foundry, where would you get the hides?—Belfast and the surrounding districts.

Chairman.

3705. Your evidence that you would increase your own business is important?—Yes. The Government would never spend money better in Ireland than in sending deep water to Newry, and if you have any influence with the Chancellor of the Exchequer—who is a cranky Antrim man—recommend him to give this grant and we will erect a monument to him.

Chairman—continued.

the case of a cargo of 4,000 to 5,000 tons, is considerable. Nearly all the lighters in this port are built and equipped for canal work and therefore unsuitable for going into the lough, where even in calm weather the sea often breaks over them when loaded, and in rough weather the owners would not undertake the work. In addition to this, Newry being a tidal port, if our lighters miss one tide they have to wait nearly twelve hours, which means that the work of discharging has to stop, and thereby we run the risk of a claim for demurrage. When we have overcome the difficulties of discharging and put our meal on the market we invariably find that, notwithstanding all our efforts, we are unable to compete with millers in Belfast, Dublin, Derry, and Sligo. In all these ports steamers with full cargoes can come alongside their quays, consequently they do not incur the expenses that we have of conveying about sixty or seventy men by land and water from Newry to the ship each morning, of supplying food to them, of providing lighters to carry the grain, of a tug to tow in the lough, often hired from another port, of a tug or horses to tow in the canal, together with the risk of loss through collision, wild weather, heavy seas, and, at the end of all, a possible claim for demurrage. From our point of view, as millers and grain importers, deep water is an absolute necessity if Newry is to retain her position as a port, and without which it must sink to the level of an inland town, and millers like ourselves would thereby be enabled to draw our supplies from grain importers in the ports already mentioned or from Liverpool. In this case we are confined to a purely local trade insufficient to keep our mills running to their full capacity, and when we cannot do this maize-milling in normal times is an uneconomical proposition. Newry, being situated about midway between

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Mr. BREAKER.

{Continued.

Chairman—continued.

Dublin and Belfast, is the natural port for a large agricultural district, and is in a splendid position for receiving and distributing grain and feeding stuffs to the farming community at a minimum cost, but this can only be obtained by having a waterway that will enable direct steamers to come right up to the town, and thereby save all the additional charges and expenses that now exist.

3707. You spoke of cargoes of 4,000 to 5,000 tons?—Yes.

3708. You get these steamers in?—We have, in previous days.

3709. What draft of water?—Drawing about 20 ft.

3710. You could not take deeper than that?—I think that is the deepest that we have had. We have had them drawing 21 or 22 ft. There are 27 ft. of water on the bar at full tides, and, if spring tides, up to 30 or 33 ft.

3711. You say that steamers proceed up the river to the Victoria Basin, 500 miles from Newry, where the discharge takes place?—Yes, after being lightened in the Lough.

3712. Do you mean you have to discharge all your grain?—Yes, from large steamers.

3713. Is that pool outside the locks?—Yes.

3714. That is very sensible?—Yes.

3715. What quantity of stuff do you bring in in the year?—From 22,000 to 25,000 tons. That is for our own firm, prior to the war.

3716. That you bring into Newry?—Yes.

3717. How does that go out from Newry?—By rail principally. Reference was made to a boat carrying

Chairman—continued.

general cargo along the canal to Portadown. Formerly we sent a good deal of meal by canal.

3718. You don't do it now?—No.

3719. Is that because the canal boats are not quick enough, or because of the delay?—It is because of the competition. The expenses are so great that we are unable to compete favourably.

Mr. Field.

3720. The absence of facilities here prevents you from competing successfully with railroads in Belfast and other centres?—Yes, undoubtedly.

3721. And therefore you want these improvements carried out?—Yes. We consider it a matter of national importance to give us the facilities we require.

Mr. Lindsay.

3722. I am surprised that you cannot compete with Belfast, when you had your mills on the canal?—There is the trouble and expense of getting the corn to the mill.

3723. In regard to the sending away, you had rather the advantage of Belfast?—Yes.

3724. The lighter taking 88 tons of traffic is stopped altogether?—Yes.

3725. You don't send northward at all?—No, not by lighter.

3726. You send by rail?—Yes, a little to Portadown.

3727. If you went to Portadown, why not send by water?—The water traffic is so little that it is not worth putting a special lighter on.

Mr. ROBERT S. REDMOND, J.P., Managing Director of Messrs. W. F. Redmond and Co., Timber Importers, Newry, called in ; and Examined.

Chairman.

3728. You are managing director of Messrs. W. F. Redmond and Co., Ltd.?—Yes. I have not had time to prepare any written statement. I did not know until this morning that the Committee were going to sit in Newry. My evidence is practically what Mr. Breaker has given you. We take in cargoes direct, and we find that we have the same difficulties as Mr. Breaker described in connection with vessels of 3,000 tons. We have to discharge the cargoes in Carlingford Lough. We have invariably to take the deck loads off and to lighten the vessel and complete the discharge at the Victoria Basin. We can never bring in timber as cheaply as it is brought to Belfast. In fact, latterly, cut timber by Belfast costs 30s. per standard. So far as the small sailings are concerned we can get them, but they are only small boats.

3729. They come right up?—Yes.

3730. What depth of water for the small vessels?—About 15 ft. They can only come inside the lock gate, and we have to lighten them down to about 15 ft.

3731. What draft of water have you at Carlingford Lough?—Before the war we used to get vessels drawing 18 or 19 ft. of water to come up to Victoria Basin. If they were any deeper than that we would have to lighten them before we got them up.

3732. At Carlingford Lough?—Yes.

3733. Do you think that national assistance ought to be given to improving facilities here?—Yes. There is going to be a very big development in the country, and there is no reason why the district of Newry should not be able to have timber supplied as cheaply as Belfast. At present we cannot sell as cheap as Belfast, as we have no deep water.

Mr. Field.

3734. You think it is necessary that you should have equal facilities with Belfast to carry on your business?—Yes.

Mr. VINCENT J. O'CONNELL, Engineer to the Newry Harbour Trustees, called in ; and Examined.

Chairman.

3735. You are Engineer to the Harbour Trustees?—Yes, sir.

3736. Can you tell the committee something about the conditions of the canal from the Albert Basin down to Victoria Lock?—Yes. The condition of the canal

Mr. Keating.

3737. Assuming that these facilities were given, are you in a position to say anything as to the possibility of the merchants and traders of Newry being prepared to undertake to maintain and keep going the thing if it were established?—I don't see any reason why they should not.

3738. Have you heard any general expression of opinion on that effect?—I don't know that I have, but I think it is quite possible.

3739. In your own personal case, you think it is quite possible that no objection would be raised to that?—I cannot answer that.

3740. I don't want a personal commitment of any kind from you, but I want to know if your opinion coincides with the opinion I have heard privately expressed that the trading community of this port and the county would be quite willing to do their best to contribute towards the up-keep of the river, provided that it was improved in the way that has been suggested?—Well, I think the extra traffic that would be gained would be almost sufficient to do that.

Mr. Lindsay.

3741. Have you got a business in Belfast?—Yes.

3742. Did it pay you at all to bring timber there and distribute it from there?—It is a different business altogether we have in Belfast. We don't sell stuff except in cases. I was speaking of the timber required for Newry. We had to keep vessels for three weeks, discharging.

3743. Did you bring by rail from Belfast?—Yes.

3744. Not by water?—No.

Mr. Hudson.

3745. I didn't catch exactly the figure that it cost you to bring by Belfast rather than by water?—It cost about from 15s. to 20s. a standard extra to take it by rail.

Chairman—continued.

at present from Albert Basin down to the Victoria Lock is not sufficient for the boats that are going up. It is too narrow, and there are a great quantity of stones falling from the sides of the banks into the bottom.

3746. Has

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Mr. O'CONNELL.

[Continued]

Chairman—continued.

3745 Has any effort been made to get these stones out?—They have been taken out from time to time. They have been removed by means of diving. They have not, however, removed anything like the quantity that has fallen into the bottom of the canal.

3746 If you had to keep that canal in order, what would you do?—The only means we have of keeping it in order is in regard to the stones has been diving. The only portents that we keep in order are portents that are constantly reported by ship-owners whose vessels have taken the bottom. They mark a particular place and we have that particular stretch cleaned.

3747 At that rate, you must get a good many stones out?—We are removing a good many. One summer we removed about thirty tons.

3748 What is the bed of the canal?—It is stone-pitched down a good portion of it—at least, I understand that it was pitched underneath the bottom, but I cannot say for myself. It was made before my time.

3749 Take the Victoria Lock, what water have you got there?—We have in the inner sill of the lock 18 feet.

3750 Does that mean that you can get a vessel drawing 18 feet?—No. Just at that particular point there is 18 feet, but the draft diminishes from that point on towards Newry. The general draft from that to the old locks is 15 feet, and it is less still coming to the town of Newry, so that the maximum is from 15 feet 3 inches to 13 feet 6 inches for a boat coming up to the town.

3751 Is there less water there now than there used to be?—I understand that there is. The water level is still at the same height but the bottom of the canal is different with the material falling in.

3752 What is the scheme for remedying this?—The proposed scheme is to deepen the river from beyond Warrenpoint up to the town of Newry, giving a depth at low water at ordinary spring tides of 11 feet. By that means the canal from the Albert Basin to Victoria Lock would go out of use altogether, but immediately adjoining the Albert Basin it is intended to have a large basin so that vessels between 300 and 400 feet could turn round, and also to have a wharf on the east side of the basin about 800 feet long and have a connecting lock between this basin and the Albert Basin 400 feet long to enable vessels to pass from the river up to the Albert Basin. By this means it was intended that vessels of 5,000 tons could come up to the basin.

3753 What water have you got there?—At present! 3754 Yes!—In the river, at low water, we have nothing.

3755 What has become of the old deep pool?—There was no pool. The basin I spoke of was the one adjoining the Albert Basin up to the town. The river has to be deepened up to that point, and the basin formed large enough for large vessels, and that was to be connected with the Albert Basin by a lock 400 feet long.

3756 What is the estimated cost?—£264,000.

Mr. Fidd.

3757 Suppose you did deepen the river there, do you think the water would scour it all right down along?—I dare say you might secure some dredging, but I think it would maintain itself pretty well.

Chairman.

3758 You think it would?—Yes. I expect you would have some dredging to do, but I don't think it would be very much.

Mr. Fidd.

3759 What is the flow of the river?—I am not sure.

Chairman.

3760 I understand the history of this place has been that, with the exception of Mr. Nunn, who in 1823 suggested the deepening of the river, every other engineer has been opposed to it?—I am not quite sure.

3761 That is the history of it, I think. In 1823 Mr. Nunn wanted to deepen the river but other engineers decided that the best thing to be done was to have the canal?—I don't know.

3762 If it was not found satisfactory to deepen the

Chairman—continued.

river, could that canal be extended and deepened?—The present canal?

3763 Yes!—I don't think it could be deepened because it is so narrow. It is about 60 ft. at its narrowest point. If you deepen it you must widen it, and the bank between the canal and the river is very narrow, and the railway and the road are on the other side. That is the obstacle.

Mr. Fidd.

3764 Would the canal bear deepening?—I don't think it would as it is without widening it.

3765 It would have to be modernised?—Yes.

Mr. Lamb.

3766 There were no dredging facilities in 1831?—There was no steam dredging.

Chairman. I gather that in '48 you bought a steam dredger for here and made a contract for £40,000.

Mr. Fidd.

3767 Have you a dredger now, Mr. O'Connell?—No.

3768 And the canal was never dredged in recent years?—No, not in any time. Parts of it could be dredged. You could improve some parts of it, but you could not make big improvements to suit big vessels.

3769 Could you dredge it at all with the ordinary dredger owing to the big stones at the bottom—the bucket dredger would not do, or the suction dredger?—The suction dredger would not do.

3770 Why have you got the pump?—Owing to the scarcity of water in the dry season.

3771 That costs a lot of money?—Yes, it is an enormous cost.

Mr. Lamb. It costs £1,000 some summers.

Mr. Fidd. That would go a long way in doing the improvement?—

Mr. Lamb. Yes.

Mr. Lindsay.

3772 Would it be possible, Mr. O'Connell, to get water from the Newry River higher up?—I am not quite sure of that. At the point above the railway barracks the river and the canal are nearly the one level.

3773 What about higher up, again?—Higher up the river would be a higher level than the canal.

Mr. Lamb.

3774 The river comes into the canal about two miles on the other side of Newry, and flows out of it again.

Mr. Lindsay.

3775 I gather, Mr. O'Connell, that the Albert Basin is connected with the inland portion?—Yes.

3776 You said you had no dredger?—We have not.

3777 A certain amount of dredging has to be done in the river below Victoria Lock?—There has been none done since the '84 scheme.

3778 The river maintains itself?—From the Victoria Basin.

3779 Down to deep-water point?—Yes.

Mr. William Fox.

3780 Are you responsible for the maintenance of the ship canal at present?—Yes.

3781 Can you tell me what is spent each year on it? I notice the total expense is about £4,000. How much of that is for maintenance?—I cannot tell you. The Secretary can tell you. I have not the figures.

3782 Have you gone into any of these schemes for the improvement of the outer canal?—Only within the last few days; I have not looked into them very deeply.

3783 You are not able to give any estimate of any of the schemes?—It is really too big for me to get even a rough estimate in the time.

Mr. Hydes.

3784 Have you gone carefully into this matter in regard to the necessary improvements required in the navigation into Newry?—Yes.

3785 And you are confident that the river project is the only one that you can recommend?—Yes.

3786 Yes.

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Mr. DELAP.

[Continued.]

Mr. ALFRED D. DELAP, B.A., M.C.E.E., Consulting Engineer to the Newry Harbour Trust, called in; and Examined.

Chairman.

3795 You are Consulting Engineer to the Newry Harbour Trust?—I am.

3797. Can you tell us what you think of the present condition of things here and what you think ought to be done?—I was called in, in 1915, and made a close examination of the ship canal from the Victoria Lock to the first of the inland locks. As regards the scheme for bringing deep water up into the town, except as a general principle, I have not gone into that scheme at all. I have gone over the ground and seen that it was generally feasible. As to the canal and the ship canal between Victoria Lock and Albert Basin, I made a very close examination. I took soundings the whole way up, and I have got full particulars as to the depth of water, etc. The depth of water in the canal has been increased from time to time as the increased traffic asked for it, by action in the wrong direction entirely. Instead of deepening the canal they raised the water level in it. The result is that the water level is raised to a point when another inch will flood the town, and they have raised their overflow to such an extent that it maintains the water at the maximum level. There is therefore no storage at all for the inland water, and so that is a fluctuating supply a very large part of the water supply goes over the side and is lost, and the result is that expensive pumping has to be resorted to. I have got full particulars of the canal at every point. The worst place is the point where the railway, road, canal and river are at the very closest, and there is there a stretch of just half a mile with 14 feet of water and only 5 feet wide. Anything drawing over 15 feet tanks along the bottom. The canal was built for sailing traffic only and the banks were put in at a slope of 1½ to 1. The moment steamers began to run they began to pull the banks down. The canal has been allowed to revert to a state of nature, and has exactly conformed to the ordinary river bed. You have the deep water in the centre, and at the sides the vessels tend the whole way. The stones of the pitching have worked their way down to the curve, and are a considerable danger to ships. Vessels for this canal have to be specially built to stand the wear and tear. In my opinion, the canal could not be increased by any reasonable kind of improvement work to give an ordinary draft of more than 14 ft. of water and a width of 25 to 30 ft. without very great trouble. There is also another point where the actual depth is only 14 ft. 6 ins., and unless that is completely altered the canal cannot be deepened.

3798 Could that be altered?—Yes. It would run to £4,000 or £5,000. You would have to cut and dry the canal. You could not put a tunnel under it. At present that point governs the whole situation. Then the canal, as you know, is confined between the river, road, and railway. There is no room. You could not widen the canal without complete re-construction.

3799. It does not look very hopeful?—I don't think there is any hope for that canal at all. Traffic is always wanting bigger ships and better opportunities, and there is no possible way of having them with the canal. At present the canal is in an extremely dangerous condition. I could point out a place where the normal level of the canal is at present at the roots of the piers. There are not three inches between the water level and the place where it flows over.

3800. Your idea is that if more water is to be got it must be by dredging the channel?—Yes. With regard to that, I have been informed that there is no dredging required between the outlet and Doyle's Hole. Doyle's Hole has silted to some extent. There is no reason why Doyle's Hole should be there at all, and there is no reason why it should not sit up. There is no reason why such a hole should ever have been cut and not filled in thousands of years ago. The river comes down and there is a deep sewer without any rubble course. There must be some current. It has filled up to some extent, but still there is deep water there.

3801. Has there been any suggestion made as to making a big wharf there?—I don't think so. There is very little flat ground available for the extension of wharves, but for an oil depot there would be

Chairman—continued.

plenty. I suggested myself that a very light wharf there for discharging an oil vessel would be of great use to trade.

3802. Is there any estimate for dredging the river from Newry to Waterpoint?—No.

3803. It would be very expensive?—No, I don't think so. From Newry to the Victoria Basin—to Doyle's Hole—the dredging should not be an expensive job. There is no sort of rock in that stretch. Dredging is the cheapest form of excavation.

3804. About the Bar—is it maintaining itself?—I believe so. The charts for the last twenty years show the same soundings. I think undoubtably that it could be improved enormously. You have 11 ft. at new.

3805. It is a material thing, if you want a big vessel to come in, to have a place that they can come into at all times?—Yes.

Mr. Wilson-Fox.

3806. Have you seen any survey of the proposed channel—have any borings been made?—I have not made any borings, but I think borings have been made. There is no indication of rocks.

3807. You think it would be solely a dredging proposition?—Yes.

Mr. O'Connell.

3808. There is only one place for about 10 to 20 chains that shows any hardness. That is some distance down, and the remainder is pure mud.

Mr. Wilson-Fox.

3809. Do you think, Mr. Delap, there should be no difficulty in bringing a 3,000-ton ship to the town by dredging?—No.

Mr. Lindsay.

3810. If this channel were made to the town, would it maintain itself?—I think all channels cut in mud would require a certain amount of maintenance.

3811. Would there be sufficient silt?—No. There is no volume of water that comes down.

3812. Are you familiar at all with the inland parts of the canal?—No. Of course, I have looked at the sections.

3813. Do you think this is a feasible project?—It is feasible. Of course, anything is feasible in engineering.

3814. Is it desirable?—That is hardly for me to say. I would like to see it done.

3815. It would not affect the Bann lower down at Pettadown?—No, I don't think so.

3816. There is plenty of water?—Yes, ample water.

Mr. Field.

3817. I take it that your opinion is that the present canal as it exists is unsatisfactory, and you would not recommend from a professional point of view that money should be expended on it, and you would prefer deepening the river?—Yes, I would prefer deepening the river.

[Chairman.] Where were those borings taken in the river?

Mr. O'Connell.] From Doyle's Hole up to the Albert Basin.

[Chairman.] You have not taken any below?

Mr. O'Connell.] No.

Mr. Field.] What is the history of Doyle's?

Mr. O'Connell.] I don't know.

Mr. Field.] Is he like Pion MacCool—all over the place?

[Chairman.]

3818. If there is a good deal of rock and sand, Mr. Delap, it would be a much heavier proposition than dredging mud?—Yes, enormously.

3819. There has not been any estimate made of the cost?—I don't think so.

Mr. O'Connell.] The estimate I gave includes the rock.

[Chairman.] What is the figure?

Mr. O'Connell.] £364,000 for the entire work.

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[Chairman.]

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Mr. DELAP.

[Continued]

Chairman.] Do you know, Mr. O'Connell, how much of the river has got a rock bottom?

Mr. O'Connell.] It would be, I suppose, 300 or 400 yards.

Chairman.] What depth of water can you get over that at the present time?

Mr. O'Connell.] Seven feet at low water.

Chairman.] And at high water?

Mr. James H. Monaghan, Inland Inspector of the

Chairman.

3310. You are the Inland Inspector?—Yes, sir. I have been connected with the inland canals all my life.

3311. Will you tell us something about the condition of the canal?—The condition of the inland canal is fairly good, but there have been complaints from merchants and lighter-men of not having a sufficient draft of water. Our highest sill is 5 feet 4 inches, and we never give more than 5 feet 2 inches draft. We have 15 locks in the canal. To develop the canal to suit larger barges and give a greater draft, eight locks should be done away with altogether from Gorragewood to the Barn river. That would entail a very heavy sinking, up to 34 feet against level. There would be then five locks remaining. Two of these should be done away with and substituted by larger locks to facilitate the heavier barges.

3312. Has any scheme been drawn up about that?—No, sir.

3313. Is this your own view?—Yes, it has been for years, and that would give an endless supply of water. The above sinking would give a draft of 8 feet and be 2 feet 6 inches under normal level of the Barn river at Whitecap Point, and it would drain miles of country that is now almost waste land.

3314. How are the banks of the canal?—Fairly good at present. There is none of them in danger. They are all right.

Mr. Hudson.

3315. In your opinion would the banks of the canal bear the alterations you suggest?—They should be made considerably wider.

3316. And strengthened?—They would not require so much strengthening.

3317. What is the estimated cost of the improvement you suggest?—That is miles beyond my capacity.

3318. You have not gone into that?—No, indeed.

Mr. Lindsey.

3319. What you propose is something like a railway cutting?—Yes.

3320. What is the land—is it bog?—Part of it is bog, but part of it is rich meadow which is partly flooded.

3321. Are the locks working reasonably well?—Fairly well.

Mr. O'Connell.] Eighteen feet.

Mr. Gardin, Solicitor.] This is the portion of the navigation that the £40,000 I mentioned in my evidence was devoted to improve. It was devoted to the deepening of the channel at those narrow waters, and it was done in view of this bigger scheme coming on later. The scheme of 1880 was on the same lines that we are going on now.

Newry Trust Canal, called in; and Examined.

Mr. Lindsey—continued.

3322. There is not much delay in getting through?—No delay at all.

3323. What headway have you got on the canal?—9 feet 6 inches.

Mr. Field.

3324. Is it your idea that a large scheme should be entered on for the sinking of the canal and the provision of new locks?—Yes.

3325. Do you think that would be justified by the increase of traffic?—Not entirely, but the improvement would be so great that it would be worth it.

3326. The improvement of the flooded land?—Yes.

3327. Have you any idea how much land would be improved if your scheme were carried out?—Roughly it would affect up to a thousand acres.

3328. Which could be made productive?—Yes.

Chairman.] On behalf of the Sub-Committee I beg to thank all the witnesses for the information they have given us, and enabling us to get a very clear idea of the requirements of Newry.

Mr. Felix O'Hagan, Chairman of the Harbour Trustees.] We thank you, sir, and the other members of the Committee for the patient hearing they have given us. Newry requires deep water. If she does not get it she will lose her position as a distributing centre.

Chairman.] We quite appreciate that.

Mr. H. J. McCarrick, Chairman of Newry Urban Council.] I am very pleased that your Committee has come to Newry, and on behalf of the people of the town I beg to extend to you a hearty welcome. I trust that the evidence that has been put before you will have some weight, and that your Report will be favourable to this town. Our Council has already given a guarantee regarding the loan for £25,000, and I am sure if Newry, in the future, is asked to contribute a small sum to promote deep water to the town it will do so. I wish to associate myself with all the evidence that has been put before you. It is perfectly straightforward and quite true, and I hope some benefit will come to Newry as a result of your sitting here to-day.

Chairman.] I wish to thank you and to say that we have got very good evidence showing the condition of things very fully.

(The Sitting then concluded.)

*TWENTY-FIRST PUBLIC SITTING: THURSDAY, 20TH SEPTEMBER, 1918.

At the TOWN HALL, DUNDALK, at 12.30 p.m.

MEMBERS PRESENT:

Mr. Wilson Fox, M.P., Chairman of the Select Committee.
Mr. Wm. Field, M.P.

Mr. W. A. Lindsay, M.P.
Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.

Mr. Philip MacKalty, Secretary

SIR ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

(Chairman.) I would like to explain why we have come here. On the 5th of last month, the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the inland facilities for transport within the United Kingdom to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements and to make recommendations. That Select Committee

appointed a sub-committee, of which we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development; and to visit such places as they may consider necessary for this purpose. We have now come to Dundalk, and we shall be glad to hear any evidence you may wish to give as in reference to the transport facilities of this centre.

Mr. BERNARD HAMILL, J.P., Chairman, Dundalk Harbour Commissioners, called in; and Examined.
Chairman.

3829 You are Chairman of the Dundalk Harbour Commissioners—I am Chairman of the Dundalk Harbour Commissioners for the past 19 years, and a member of the Board for over 20 years, and generally acquainted with the character of the trade done, the facilities afforded, and the possibilities of development of the port. Dundalk is so situated geographically and with regard to railway communications that it is the natural gateway for the imports and exports of a large part of Ireland, including the counties of Louth, Monaghan, Cavan, Fermanagh and Lurgan, and a considerable part of Meath and Armagh. As indicating the geographical advantage of Dundalk, I may mention that the Great Northern Railway Company, notwithstanding that it connects the great ports of Dublin, Belfast and Derry, has selected Dundalk as the port of import for coal, rails, sleepers and all classes of railway supplies, and has secured Parliamentary powers and purchased the lands required for the construction of a branch line to a proposed new wharf on the embankment just below the range of quays. From time to time the Board has had under consideration schemes for improvements of the port, which suffers from two main disadvantages, viz., the comparative shallowness of the navigable channel which makes the port a purely tidal one, and the difficulties in handling traffic expeditiously, which, in the opinion of the Board, cannot be overcome unless the quays come under the ownership and control of the Harbour authorities. The only and hitherto insuperable difficulty in the way of undertaking a scheme of improvement is that of finance. The Board has an income of about £7,000 per annum. Almost a third of this is absorbed in paying charges on the outstanding loan of £35,000, representing sums borrowed to provide the present dredging plant, now close on 40 years old, and, having regard to modern engineering developments, now shoddy. Of the balance of income about £2,000 is annually available for dredging, a sum barely sufficient to remove accumulations of mud, and affords no means of undertaking works of permanent improvement. The plant now available is old and of limited capacity, and adequate only for the limited amount of dredging indicated. I beg to submit the following draft of a scheme of improvements adopted by the Board for submission to the Parliamentary Committee. Owing to the state of the river from the bar inwards shipping can at present only be conducted at most for two hours before and two hours after high water. If the waterway from the bar to the quays were dredged, so as to give a minimum depth of 8 ft. 6 in. to 9 ft. 6 in., this would enable shipping to be conducted for eight hours out of the

0.178.

Chairman—continued.

twelve. This would mean lowering the present bed of the river by four feet, or the removal of, say, two million tons of material. To do this with the plant now available would be an impossible task, and the Board have not sufficient resources to contemplate the provision of adequate plant. The Board propose that the Government provide, on loan free of charge to the Commissioners, the requisite plant for such time as may be required to carry out the work, and advance at a reasonable rate of interest such sum as may be required to operate the plant, this sum to be repaid by sinking fund as may be agreed upon. The Harbour Commissioners would further recommend the purchase of the private quays, so as to bring them under uniform public control, the piling of the foundations of same, the building up of gaps in the frontage, and the extensions of the wharves by piling to a uniform line, thus providing 450 ft. of additional berthing, and enabling a second line of rails to be laid to facilitate shunting of waggons, the erection of up-to-date cranes to expedite the discharge and loading of vessels, the connection of the Steam Packet Company's wharf with the proposed Great Northern Railway branch line, and the installation of tollage over the Greenore Company's line linking up George's Quay with the Great Northern system. A loan on reasonable terms would be required to carry out these works.

3830 I understand that the method of distribution in Dundalk is entirely by rail?—Yes, most of it.

3831 Has any effort been made to run the railway line from the Greenore Railway to the Steam Packet Company's wharf?—I don't think so. According to the opinion of engineers, I think the quays would not bear a line of rails.

3832 The line did run down?—Formerly it was laid, but whether they used it or not I cannot tell.

3833 The present loan is £35,000?—Yes.

3834 Is that the total amount originally borrowed?—Yes.

3835 What have you got in the way of sinking fund towards the repayment?—£25,000.

3836 You have got that available?—Yes.

3837 So you have only £10,000 standing against you at the present time?—Yes.

3838 You say, "If the waterway from the bar to the quays were dredged so as to give a minimum depth of 8 ft. 6 in. to 9 ft. 6 in.," does that mean low water?—Yes.

3839 What have you got at the bar at low water?—2 ft. 8 in.
3840 How

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Mr. HAMILL.

[Continued]

Chairman—continued.

3840 How do you propose to deal with that?—I think by suction dredging.

3841 What depth do you propose to get there over the bar?—Mr. Williams, our engineer, will give evidence with regard to that.

3842 I gather that what you really want are Parliamentary powers and a loan?—Yes.

3843 And that the Harbour Commissioners would do all the work if they get a loan at a reasonable rate of interest and Parliamentary powers to enable them to do it?—That is right.

Mr. Wilson-Fox.

3844 You want the loan of a plant?—Yes.

3845 Have you estimated what the amount of the loan you require would be?—No. It is only a broad scheme we have considered, and we have kept within as reasonable grounds as possible.

3846 Have you formed even a rough estimate?—No.

Mr. Hudson.

3847 Do you estimate that you would get more trade to the port if the improvements you have in view were carried out?—Yes.

3848 What class of trade do you consider you would secure?—The corn trade might be greatly increased and the coal trade.

3849 General cargo inwards and outwards?—Yes, and a great increase in the coal trade.

Mr. Field.

3850 You have been Chairman of the Harbour Board for a number of years?—Yes.

3851 Has the Board during your tenure of office made any attempt to overcome the disabilities that accrue from the quays being under private ownership?—I must say "No," but we always saw that it was a great difficulty and that it left us in a very bad position. I think if the ownership of the quays was in the hands of the Harbour Board things would be done more expeditiously and better. Vessels that come here have to arrange in advance with the private owners.

3852 Is it not a fact that although you are a Harbour Authority you have no jurisdiction over the quays, and that any arrangement for commerce must be made with private individuals instead of with the recognised Harbour Authorities?—That is so.

3853 Is it your opinion that powers ought to be sought in Parliament so that the Harbour Commissioners may really become Harbour Commissioners, because as a matter of fact they are not Harbour Commissioners at present, only in name?—That is quite true.

3854 Do you agree with that?—Yes, and the Harbour Commissioners agree with it. That is one of the recommendations that we are very strong on, that we should get control of the quays.

3855 With regard to railway facilities, do the London and North Western Company almost refuse to grant facilities to private owners?—They give no facilities. We found it impossible to get any facilities from them even for dredging. They would not give the guarantee which the other private owners gave. They would not give us the guarantee necessary to do the dredging because the quays are in such a condition that we could not dredge unless we got a guarantee.

Mr. DAVID J. WILLIAMS, Engineer to DUNDALK Harbour Commissioners, called in; and Examined.

Chairman.

3879 You are a member of the Institution of Mechanical Engineers, London?—Yes.

3880 And I understand you have been Resident Harbour Engineer of Dundalk for the past ten years?—Yes, and I know the harbour intimately all my life. I have prepared the outline of the engineering proposals submitted in the statement of the Chairman of the Board. Knowing the harbour as intimately as I do, I have no hesitation in saying that there are no engineering difficulties in the way of carrying out this scheme. There is practically no rock in the channel from the Bar inwards, as is proved by the soundings taken in 1868, and the deepening of the channel is therefore merely a matter of removing the mud, sand and gravel which form the bed of the river, a work which could be easily accomplished by up-to-date

Mr. Field—continued.

3885 Did the other owners give you that guarantee?—Yes.

3887 And the London and North Western refused?—Yes.

3888 And the logical conclusion is that they don't want traffic?—Yes.

3889 Have the Great Northern any connection with the quays?—They have rented ground and they are going to build a wharf connecting their line with the quays.

3890 Is it your opinion that if the proper transit facilities were in existence, that there would be an increase of exports and imports, and that all the surrounding country would be benefited?—Yes.

3891 You look upon this not merely as a local but a national undertaking?—Yes.

Mr. Keating.

3892 Is it your opinion that Dundalk has suffered owing to the want of proper transport facilities?—Yes. If we had a deep-water channel it would be a great improvement. Vessels drawing 17 or 18 feet of water cannot come to Dundalk. They must go to Belfast or Dublin.

3893 Have you considered the advisability of establishing a central authority over the whole of the ports and harbours of Ireland—would that in your opinion be advisable?—We have not considered that at all, but I certainly believe that an authority like that would make a great improvement. We have not, however, given that matter any consideration.

3894 The private ownership of the quays is hampering the trade of the port?—Yes.

3895 And your only remedy is to go to Parliament and get powers?—Yes.

3896 That is a costly procedure?—If nothing cheaper can be secured, it should be done.

3897 It would be desirable in your judgment to have control of the quays?—Very desirable.

Mr. Lindsay.

3898 You say you borrowed a certain amount of money, of which you owe £10,000?—Yes.

3899 Who did you borrow that from?—We issued stock.

3900 You got it from no Government Department?—No.

3901 Can you say if Dundalk at any time in the history of the port received State assistance?—I cannot say.

3902 Can anyone give us that information?—Someone can.

3903 You understand the desirability of having that information?—Yes. I understand no State assistance has been received at any time.

3904 How long is the Trust in existence?—Since 1855.

3905 About the tollage over the Greenore Company's line, linking up St. George's Quay with the Great Northern Railway, do you consider that to be excessive?—The traders do. It is very much complained of.

3906 You suggest a limitation of the tollage?—Yes, I think it is fixed at 2d. per ton.

3907 What is the distance?—It is short.

3908 Can anyone speak definitely about that?—Yes.

Chairman—continued.

dredging plant. The spoil removed might be economically and profitably disposed of in reclaiming tidal flats on the north and south sides of the inner harbour, these lands being the property of the Harbour Trust. The proposals now made include the completion and extension of the plans of improvement laid down in 1854 by Mr. John Neville and approved by the Board of Trade and partially carried out, and, in addition, the proposals made by Sir John Parnes Griffith in 1895, as shown on plans which I have here.

3911 You approve of the plans?—Yes.

3912 You never had any dredging?—No, except experimental dredging to see if it was possible to work a suction dredger, and I understand the trials were successful, and they showed that the bar could be dredged by a suction dredger.

3883. Is

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Mr. WILLIAMS.

[Continued.]

Chairman—continued.

3883. Is it supposed that there would be a sufficient scour to keep it down?—You would not get sufficient scour to maintain it. There would have to be dredging kept up, but we would have a considerable scour if the river were deepened. This would influence the bar considerably.

3884. What draft of water do you propose?—At present only 2 feet 6 inches, and that at three-fourths or half tides leaves about 7 feet 6 inches. We would be able to get 11 feet over the bar.

3885. Do you think that that depth would be satisfactory in the case of the more modern ships?—It would be a great benefit to the port.

Mr. Lindsay.

3886. Supposing you carried out this dredging scheme, what depth of water would you get at ordinary spring tides?—It would give us about 22 feet at high water.

3887. You think the suggested improvements would give you ample water for any traffic you would be likely to have?—Yes.

Mr. Field.

3888. Do I understand you to say that you have no modern dredger suitable to the requirements of the port?—No; we have not. We have a bucket dredge working since 1875, and she would require a good overhauling.

3889. Have the Harbour Commissioners any idea of buying a section dredge that would enable them to dredge wherever required and reclaim land?—They have.

3890. That is one of your ideas?—Most decidedly.

3891. With regard to the quay, I notice it is rather a snag affair?—Yes.

3892. Is it your idea that you would make this quay into a straight line from one end to the other by extending it into the deep portion of the river through piers?—Yes.

3893. It would enable vessels of a larger draft to come alongside and remain in comparative safety?—Yes.

Chairman.

3894. You are putting in piers?—Yes.

3895. You are giving us copies of the plan?—I can let you have copies of the proposed plan.

Mr. Field.

3896. With regard to the dredging, have you made any kind of approximate estimate of the cost likely to be incurred by the dredging so that Dundalk may become a modern harbour, because it is more or less antediluvian at present?—Yes. The levelling of the bed of the river by 4 feet would mean the removal of 500,000 tons of material. At the present rate of dredging, i.e. a ton, this would mean about £100,000.

3897. And if you get £100,000 do you think you would make the harbour somewhat suitable to the requirements of present-day commerce?—It would go a long way towards it.

3898. Have you anything to say about the railway communications?—It would be a great benefit if we were owners of the quay. We could lay a second line of rail along the quays and put up cranes.

3899. As a member of the Institute of Mechanical Engineers, and, knowing something about the harbour, do you consider that it is necessary to have the railways linked up with the harbour?—Yes, it would be a great improvement to the port.

Mr. Hudson.

3900. Do I understand that you intend dredging 4 feet deeper right up, including the London and North-Western present quays?—Yes.

3901. In your opinion, will that dredging in any degree affect the present quay walls?—Yes.

3902. Do you think that the foundations would stand it all the way up?—They would not, sir.

3903. What, in your opinion, would be the cost of repairing your quay walls and strengthening them?—That would be very difficult to estimate with the present cost of material and labour.

3904. You have not formed an opinion?—No. It would be practically impossible at present.

Mr. Hudson—continued.

3905. With regard to the private-owned quays, are they held on lease?—I understand they are freeholds excepting the London and North-Western quay, and I am not sure about that.

3906. Have you any estimate as to what they would cost to take over?—No.

3907. You have not formed any estimate as to what they would be worth to the Harbour Commissioners to take over?—No.

3908. Do you think the owners would be reasonable?—Yes. In fact, a great many of them are Harbour Commissioners and anxious to develop the port.

3909. And they would be willing to let you have them at a fair cost?—Yes.

Mr. Wilson-Fox.

3910. I think half a million tons is the figure you gave regarding the quantity of material to be taken out of the river?—Yes.

3911. Because in a statement from the Harbour Commissioners they mentioned two million tons?—Yes.

3912. The rest is to the bar?—Yes.

3913. The capacity of the port would be determined by how successful the bar dredging was?—Yes.

Chairman.

3914. You are Chief Engineer to the Great Northern Railway Company of Ireland?—Yes.

3915. Your Company, I understand, have some scheme for making a line down to the quays?—They have. I have the maps here in connection with it. (The witness then explained the scheme on the maps.) Continuing, he said: We intend to make a permanent way yard for our whole system at Dundalk as the most suitable centre for the distribution of supplies. When completed, it will be very modern and up to date. We are anxious to have the harbour deepened so as to allow a larger class of vessels to come in and out. All our sleepers come from the Baltic. Only small boats can come up now, and we have great difficulty in getting so small a boat to undertake the long trip. They are very seriously delayed.

Mr. Hudson.

3916. What size steamers bring your sleepers from the Baltic?—About 200 feet long—about 500 tons, or something like that.

Chairman.

3917. About 400 tons?—They are small.

3918. Would you think of putting in a floating dock if you had sufficient water up?—I think not.

3919. You really want to see the harbour opened so as to let in vessels up to 15 feet of water?—Yes. It would mean a tremendous difference to us. We import to this particular place about 25,000 tons of coal and 12,000 tons of other materials and stores.

3920. You have imported?—We do import about 25,000 tons of coal.

Mr. Wilson-Fox.

3921. Now?—That was pre-war.

3922. I understand that these works you are contemplating are purely for the use of your own system?—Yes.

3923. They are not for the general trade?—We shall be in a certain amount of traffic.

3924. I understand that the Act you got limited you to that?—Yes, that is so. We shall put down a line so as to get to the Steampacket Company. We cannot go beyond that. That is the limit of our powers.

3925. You can use that section of the line for any purpose?—Yes.

Chairman.

3926. (Indicating a section of the map handed in by Wilson, showing the works proposed to be carried out by his company.) What have you there—about 300 feet of frontage?—Yes, 300 or 400 feet.

Mr. Wilson-Fox.

3927. Have you any opinion as to the number of men that will be likely to be used at these new works?—There would not be many additional men. At present the work is being done at great inconvenience.

3928. You

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Mr. WILLIAMS.

[Continued.]

Mr. Hudson.

3323. You propose when that new yard is completed to lay in your necessary railway lines down to it? Yes. We shall go to the Steampacket Company's premises also.

3324. Your line would be coupled up with the proposed quays you intend to make?—Yes.

Mr. Field.

3325. I understand it is about eight years since you obtained your Bill?—About seven.

3326. Did it take the railway company seven years to make up their mind about carrying out these improvements?—We had to acquire land, and the war broke out.

3327. You have fully made up your mind that you are going to use this as a kind of base for the supply of all the materials of the Great Northern?—Yes.

3328. On account of Dandalk being the most central port in regard to your line you will distribute all the materials from here?—Yes.

Mr. S. J. COCKS, General Manager of the Dandalk and Newry Steampacket Company, Ltd., called in; and Examined.

Chairman.

3329. Mr. Cocks, you are the General Manager of the Dandalk and Newry Steam Packet Company, Limited, which carries on the only general trade from the port between Ireland and England?—Yes. My company has been established here for the last eighty years, and we have regularly carried on the export and import trade between the two countries, comprising all classes of goods. From Ireland our principal trade is that of live stock, together with eggs, butter and agricultural produce of all sorts. From England we bring breadstuffs and general merchandise. Our boats have been built specially for the trade, and have of necessity been confined to the limitations imposed by the waterway. This means that at the earliest we are only able to sail two hours before high water, and can come in not more than two hours after high water. The consequence of this is that our sailings have to be varied from day to day to suit the tide, and will range from as early as 2 o'clock in the afternoon to as late as 12 o'clock midnight. Having regard to the fact that the bulk of our trade from Ireland is of a perishable character the limitations caused by the physical state of the port are a serious hindrance to the development of the natural trade of the port. I may here say that, as can be seen from the map, the port of Dandalk is the natural outlet for the hinterland lying to the west as far as Enniskillen, and embracing the counties of Louth, Monaghan, Armagh, Cavan and Fermanagh. England is naturally the market for the produce of this country, and it is absolutely essential that the quickest and most economical method of transport should exist to join up the two sides. As one of the Harbour Commissioners I am aware of the financial and engineering limitations of the port, but I should like to say that physically I see no reason why this port should not be one of the best on the East coast of Ireland. The bay and river afford no physical difficulties of any kind, and I am of opinion that, provided the financial arrangements were all right, this port could be made into what might be called a half-tide port with the least possible expenditure of money. In many other places there is the difficulty of a dangerous bar and a tortuous channel, but here we have a fine, commodious and perfectly safe bay, with a river affording no difficulties except the common one of mud, and I have no hesitation in saying that, provided the financial difficulties could be overcome, there is no reason why the waterway from bar to quay could not be dredged to such an economical way as to make it a sound commercial proposition to keep this port open at least three-quarters of every tide time. The great advantages which would accrue from the port being brought up to date in this manner might be summarised under two brief headings, viz.:—

1. The facility of sailing in or about a fixed hour.

2. The use of larger and more commodious boats.

So far as the Harbour finances are concerned, I may say that my company already pay somewhat more than

Mr. Field—continued.

3334. Your works are here at present?—They are, and our chief stores.

3335. If this more ambitious scheme is carried out, I take it that your company would enter into an arrangement with the Harbour Commissioners to run the rails down the whole of the quay?—I am only the engineer, and not in a position to say.

3336. You are full of good intentions at that way. Would not that bring you traffic?—I am not a traffic man.

Mr. Lindsay.

3337. I understand that if this scheme were carried out, you would let the local coal merchants land their traffic?—Yes.

3338. I thought you gave evidence that it was purely a private line, and that the powers did not allow you to take ordinary traffic over it?—I am not quite sure about that. I may be wrong.

3339. It seems a rather limited sort of user of the railway?—I think we were limited, but I am not quite sure. I would not like to express a definite opinion.

Chairman—continued.

half of the total revenue, and if greater facilities were given to the trade of the port, and it was found necessary to increase the port charges, I do not for one moment suppose my company would object to bear its share of the extra burden, and I feel sure that, given the initial facility resulting from the Government supplying the means for dredging, the port would be self-supporting. As it is, the plant of the Harbour Commissioners is sadly out of date and most expensive to maintain. In these war times, and for some time after the conclusion of hostilities, it will be quite impossible for the port, with its financial limitations, to embark on any ambitious scheme, and therefore I press very strongly the idea that we should be provided by the Government, on loan, with the requisite plant for such time as may be necessary to transform the waterway from what it is at present to what might be termed a half-tide port.

3341. You say that all your boats are specially built for the trade?—Yes.

3342. To what draft of water?—To a maximum of about 14 feet.

3343. If there was more water, would it mean that you would bring bigger boats?—Yes. They are more economical to work, and we could get on a larger trade.

3344. Is there sufficient trade here to justify bigger boats?—I am rather looking to the future. For the moment we are just able to manage, but I believe that, with the development of agriculture in Ireland, we shall be called upon to handle a lot more trade than at present.

3345. How many boats are you running at present?—Four sailings a week from Dandalk to Liverpool.

3346. Is your trade smaller than before the war?—No, it is rather larger. Live stock in particular has increased. Some things have decreased, particularly breadstuffs. That is due to the general shrinkage, but on the whole our trade has narrowed.

3347. What do you bring over here as a rule?—Breadstuffs and feeding stuffs—four, polished, basic slag and agricultural implements.

3348. A great deal of these are distributed inland?—Yes. We serve right away to Enniskillen, 60 miles.

3349. What do you export?—Our main export is live stock. Last year we carried 128,000 animals—fat cattle, store cattle, sheep, lambs, goats, pigs and horses.

3350. Did you carry any dead stock?—No, nothing of that sort has ever been attempted here.

3351. Do you think that the increase in agriculture in the locality would justify you in the expectation of getting bigger cargoes if you had more water?—Yes. The main point that strikes me is, if we had deep water into the sea to enable us to sail, say, 3 hours out of 12, one could get a more fixed hour of sailing, and that would facilitate all kinds of trade. It is somewhat difficult at present. We have a boat sailing at two o'clock in the afternoon, live stock comes from a country fair, and probably it means their being held over until the following sailing.

3352. Have

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Mr. COCKS.

[Continued.]

Chairman—continued.

3358 Have you made any effort to get a railroad to your wharves?—I was present at the inquiry on the Great Northern Railway Bill, and I am able to answer a question that was asked of Mr. Carson, that the Bill authorizes the company to have a public railway, so as to enable it to carry general merchandise over that line. Coming to the steam packet side of it, while there is authority also for a line into our premises, nothing has been agreed upon between the two companies as to carrying that out, and, so long as the port is a tidal one, I don't think there would be much utility in it, because the essence of railway communication is that you must have a regular service, and I am afraid it would be putting too much on the Great Northern to run down trains at all sorts of hours to suit irregular sailings.

3359 You could have your trucks down there?—Yes.

3360 And discharge your goods into them?—Yes. I was thinking more of the live stock. I say that that hinges entirely on the question of the waterway. Get your waterway all right and your other communications will follow.

3361 Has any effort been made to get that line again up to the London and North-Western?—There are physical difficulties in the way there. It would mean knocking down our premises. We turn the barge. It would mean simply pulling our place to pieces. I really don't attach much importance to that side of it. The big thing is the water in the river.

3362 If you get water in the Harbour you would have to have better railway communications?—That will be provided by the new spur to the eastern end of our premises. The west end would be a physical impossibility.

Mr. Lindsay.

3367 Has your passenger traffic increased, or are you carrying passengers?—Not at present.

3368 You did before the war?—Yes. We were one of the ports that were closed when the passport system came out. I may say that I have been treated with the most abominable insolence by the Home Office. I wish I could get hold of someone from the Home Office to tell them what I think about them.

Mr. Field.] Why don't you write to the papers about it?

Mr. Lindsay.

3369 You trade to Newry as well?—Yes.

3370 If they had deeper water up to Newry would you increase your sailings?—Yes. All I say of Dundalk applies equally to Newry. They are two fine agricultural districts, and I think there is a great future before us as regards agricultural produce.

3371 You think if both ports were improved that there would be traffic for both?—Yes.

3372 You don't think you would get a daily sailing?—That would be rather too high. At present we have four sailings a week from Dundalk and two from Newry, and I think we could run a daily sailing from Dundalk and three sailings in the week from Newry.

3373 What were your sailings to Ardara before the war?—Once a week we made a round trip.

3374 It was one of your small vessels that went?—Yes.

Mr. Keating.

3365 You think the expenditure of money in this scheme would be a sound commercial proposition?—Yes.

3366 You have already stated that, in your judgment, the number of sailings could be considerably increased?—Yes.

3367 And your company would consider sympathetically any extra burden that might be put on them?—We should reckon to have to pay for the facilities we should get.

3368 You believe it would be possible to increase your trade?—Yes.

3369 And merchandise from this side is urgently required in England?—Yes.

3370 And some of it is of a very perishable character?—Yes.

3371 The trading between England and Ireland is very much limited owing to the absence of facilities?—It is.

Mr. Fidd.

3363 I understand your firm is here for the last 20 years?—Yes.

3365 And that the carriage of live stock is the principal item of your transactions?—Yes, in our traffic from Ireland.

3366 I think you said you carried 132,000 animals last year?—That is so.

3372 When live stock are delayed, what is the nature of the accommodation you have got?—When you lose a tide do you put them out on grass?—Yes.

3376 In the stall-feeding season what do you do?—It is very rarely we ship stall-fed cattle.

3377 Do you find the want of railway communication prejudicial to your traffic?—No.

3378 With regard to the privately owned quays, would you be in favour of handing them over to the Harbour Commissioners?—As to my company's quays, I would not like them to go to the Harbour Commissioners. We are quite able to manage them ourselves. I have no objection to the others going over to the Commissioners. We are a live concern; we have got the place in good order and it is well maintained. I don't want anything else. I want the river all right.

3379 Private interest must always go under for public convenience. From the national point of view, do you believe that the development of this port would be useful not only to Dundalk but to all the neighbouring counties?—Yes; the question of transit, particularly of agricultural produce, is a very vital question, as we have a very large district here, and we are close to a big market—England—and I do say, very emphatically, that the question of transit is of the greatest importance—of national importance.

3380 There is no use peddling anything unless you can carry it to the market?—No.

3381 You would have a larger export and import trade here, if the improvements which have been suggested here were carried out?—Yes.

Mr. Wilson-Fox.

3382 I believe you take a great interest in the finances of the Harbour Board?—I do.

3383 Your present income is 27,000 a year?—Yes.

3384 Of which 12,000 goes in dredging?—Yes.

3385 And some in general expenses, and then you have to meet the interest on Sinking Fund on your loan?—Yes.

3386 Supposing this improvement were carried out, the annual charge for dredging would not be less?—No.

3387 We are told that the cost of carrying out this dredging is going to be something like 2100,000?—So, a ton is what we have always heard the cost would be, not 1s.

3388 Do you believe that the increase in trade would give a revenue sufficient to meet the interest and Sinking Fund on £100,000?—I don't. I would not be in favour of such a big scheme as that. I was thinking of something like 400,000 or 500,000, and I do think that the trade of the port could bear an increase of at least 50 per cent; that is, turning the revenue of 27,000 into £10,000.

3389 You think the scheme of the Harbour Board is too ambitious?—I do.

3390 If you were to undertake that, you would have to contemplate a very heavy charge?—Yes. It is far too ambitious. I think we could bear anything up to 50 per cent.

3391 You would contemplate an income of £10,000 a year, but you would not go to beyond that?—No.

Mr. Hudson.

3362. You are only giving a limited support to the present scheme?—I am afraid the scheme has got out of hands since I last had anything to do with it.

3363 Are you one of the representatives of the Harbour Board?—Yes; I am a Harbour Commissioner.

3364 But you would not like to commit yourself to giving whole-hearted support to the scheme of dredging and the works that are to be carried out as suggested?—I am a whole-hearted supporter of it, but I did not contemplate anything like a cost £100,000.

3365 You prefer that portion of the work be done now and portion later on?—It would take time.

3366 I presume, as one of the Commissioners, you are agreed that the Harbour Commissioners should be the one authority in the port?—Undoubtedly.

3367. You

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Mr. COCKER.

[Continued.]

Mr. WILLIAM TWIBBELL, Coal Merchant, Dundalk, called in; and Examined.

Chairman.

Chairman—continued.

3007. You are a coal merchant, and have been intimately connected with the import trade of Dundalk for forty years?—Yes, sir.

3008. You agree with what has been said as to the obstacles to shipping presented by the present condition of the harbour and the want of accommodation for handling traffic expeditiously?—I do. I believe it would be a very great advantage if ships of large burden could be employed, which can only be done if the channel be deepened as proposed. I believe that if the quays were brought under uniform public control, the berths deepened (which cannot be done without piling the frontage), the most modern mechanical appliances employed, and proper facilities for shunting and handling railway wagons provided, the present volume of coal trade could be very materially increased.

Mr. CHARLES P. GLENNON, Managing Director of the firm of Messrs. B. O'Rourke and Co., Limited, Millers and Corn Merchants, Importers and Exporters of Grain at Dundalk, and Member of Dundalk Harbour Board, called in; and Examined.

Chairman.

Mr. Field.

4001. You have a statement prepared?—Yes, sir. I am of opinion that if the channel were sufficiently deepened to accommodate ocean-going ships, drawing 17 to 20 feet, the grain trade of the port would be considerably developed. I am certain, therefore, that if the port were improved, as proposed, vastly increased trade would follow, as merchants would then be in a position to extend their trade in the import and export of grain, at present hampered by the comparative shallowness of the river and the impossibility of bringing in the larger ships which carry this class of traffic. I find great difficulty, frequently, in procuring berths for ships under the present system of privately-owned quays. If the harbour authorities owned and managed the entire quays, and directed the berthing of vessels, this difficulty would not arise. A further difficulty is the delay at some of the wharves where only one crane and one line of rails are available for the discharge and loading of a vessel. Such delays, particularly under present conditions, mean unnecessary expense and greatly hinder the expansion of the business of the port.

4002. What size vessel do you bring in?—About 300 tons.

4003. Do you expect to bring in larger vessels?—We would like to be in a position to bring in ocean-going vessels drawing up to 17 feet.

4004. There is no suggestion, is there, in this present scheme of giving you 17 feet of water?—I think that that is what it worked out—17 to 18 feet at high water, 10 feet at spring tides.

4005. And you think you can get steamers to come in drawing 17 feet and to lie on a mud bottom?—If the bottom is made safe, I don't see any difficulty.

4006. You have also found some difficulty in connection with cranes?—Yes.

4007. What do you suggest about that? That is a matter for the harbour authorities?—Yes. There is only one crane at some of the wharves, and there is delay. You can only get one crane working on a steamer at a time.

4008. You are in agreement with what Mr. Hamill said?—Yes. I believe there is a great future before the port for the shipping of grain—that trade could be developed. The hinterland here produces enormous quantities of grain.

4009. Can you get that down by rail?—Yes. We think that we are not treated quite fairly by the London and North Western Railway Company in charging us 5d. per ton for the use of their rails for 300 yards. The Great Northern Railway Company supply the wagons, and the London and North Western charge 6d. a ton.

Mr. THOMAS CARRAN MACARTNEY, J.P., D.L., Director of Macartney, Moore and Co., Ltd., the Dundalk Brewery, Chairman of the Dundalk and Newry Steam Packet Company, and Member of the Dundalk Harbour Board, called in; and Examined.

Chairman.

Chairman—continued.

4010. You endorse the evidence that has been given by Mr. Cocker?—Yes. I would like to point out to the Committee that Dundalk was the first district in Ireland that recognised the necessity of increased tillage.

Owing to the lack of sidings, and to the fact that no mechanical power is provided for handling wagons, there is at present much unnecessary cost and delay in discharging coal steamers. This difficulty is even greater at the quays (other than the London and North Western Railway Company's), owing to there being only a single railway line thence. No improvement of the quays, berths or mechanical equipment can be looked for until the harbour authority has acquired the ownership of the quays and has brought them under uniform control and management. I think this port is entirely behind the times. As Mr. Field said, it is antiquated. I don't think it would cost anything like £100,000 to do the dredging.

4011. You don't think it would take so much?—No.

4012. It is really a matter for engineers?—Yes.

4013. Have you had a difficulty many times in obtaining a berth for your vessels owing to the private ownership of the quays?—Yes. I have had to leave a vessel lying in the river for a day because I could not get a berth.

4014. About railway facilities. You cannot handle your corn imports or exports unless better railway facilities are supplied by the London and North Western Company?—Quite so.

4015. Do you think the London and North Western Company are giving you fair play in this matter?—They give us very few facilities—practically none.

Mr. Keating.

4016. Do you agree with the witness who said that he thought this scheme was too ambitious to be carried out?—No, sir. I don't consider it is too ambitious. I fear that the estimate as given by the engineer is somewhat exaggerated. I fear that he made his calculation on our obsolete plant.

4017. Supposing his calculations are correct, do you think it would be in the national interest to carry out the scheme?—It would be in the national interest to spend £150,000 on the port. The hinterland behind here is very rich, and this is the natural outlet to the chief English markets.

4018. £3,000 a year would be the increase in the revenue of the port, according to the witness I have referred to?—I believe the revenue would be doubled. I am sure that in our own case we would more than double our trade. Speaking for myself, I am satisfied that we could double our trade if we were given proper facilities.

4019. In your judgment, this improvement ought to be carried out not only to meet present needs, but future developments?—Yes. It would be a short-sighted policy to look only to present-day requirements.

4020. It is a very satisfactory thing that this port is not looking for State assistance?—We never sought or received any State assistance. We don't wish it now.

4021. The question in your mind is to provide extra foodstuffs for the market in England?—Quite so.

Mr. Lindsay.

4022. What about the toll charged by the London and North Western?—It is charged to us.

4023. Do they send you an invoice?—Yes.

4024. For 300 yards?—Yes. That is for grain. I don't know what the charges on the other goods are.

4025. You can only speak of your own trade?—Yes.

County Louth is a very highly cultivated county, and the port of Dundalk is the natural outlet for a very wide district of country all down the Great Northern line until it meets the competition of Londonderry. I believe

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MR. MACARDLE.

[Continued]

Chairman—continued.

believe if the contemplated improvements are carried out the natural development of the port would necessitate daily sailings, and, if trade warranted it, my company would be glad to meet the demand. With the present scarcity of timber for the building of wagons, the probable high cost of coal for a considerable time after the war, and the high level which labour had reached, it seems to me that, in order to economise, it will be necessary to use these local ports to their utmost capacity, and that near an important port like Dundalk tillage would be required to provide Lancashire with food. As it is hoped that protection for farmers will be introduced, consequently daily sailings would, I think, be very desirable. As to the cost of dredging the river, it would not be £100,000 even as the 1s. a ton, and we think if we got the plant lent to us that the cost would not come to 3d. per ton—or one-fourth of the estimated cost given by the engineer. We owed £35,000, but the Harbour Commissioners have paid off £25,000, and if we get a loan from you we would pay off the old loan and be relieved of the £25,000 a year we are paying now. As I said, this district was the first in all Ireland to recognise the necessity of increased food, and this whole country is tilted to an enormous extent. All the land round here is good enough to be a market garden. You know that you owe us £265,000,000.

4034-5. I don't—The Government does. That is a positive fact.

Chairman.] We don't represent the Government. We represent the Parliamentary Committee.

Mr. Hudson.

4035. I gather from your evidence that your opinion is that if this scheme is carried out it will be a business undertaking, and amply repay for the work done?—Yes.

4037. You are Chairman of the Dundalk and Newry Steam Packet Company?—Yes.

MR. SAMUEL LOCKINGTON, J.P., Steamship Owner, Coal Merchant and Harbour Commissioner, called in; and Examined.

Chairman.

4036. You are a steamship owner and coal merchant in Dundalk?—Yes, for almost 39 years. I handle between 60,000 and 70,000 tons per annum at the port. I am also a Harbour Commissioner. I believe that if the coal trade of Dundalk is to be developed there should be better facilities for handling and dispatch. The deepening of the navigable channel will involve the deepening of the berths, which at present cannot be dredged, as to make that operation safe it would be necessary to pile and extend the quay frontage, a work which the private owners do not see their way to undertake. Mechanical discharge of greater capacity and speed should be provided, as well as electric or other mechanical haulage for handling wagons on the quay. The Commissioners have come to the conclusion that the only means of bringing about these improvements will be for the Harbour Trust to acquire the owner-

Mr. Hudson—continued.

4033. Are you in favour of the Harbour Commissioners being the only authority in the port?—Yes.

4039. I understand that you are pressing for a daily sailing because of the fact that a large amount of your traffic is of a perishable character?—Yes.

4039. I may take it from you that you thoroughly support this scheme as put forward, and that you would prefer it was carried out at the earliest possible time?—Yes.

Mr. Field.

4038. You regard this improvement as a sound commercial proposition that would pay for itself?—I think it is perfectly plain to anybody. You have only to look at the line of distribution and take all the towns along the railway down to Enniskillen and to Ballyshannon. It is obvious that Dundalk is a fine centre for distribution if properly developed. Sir John Aspinall, of the Lancashire and Yorkshire Railway Company, when he saw our port, said that if there was someone to develop this place the possibilities were extraordinary.

4032. You believe that if the improvements spoken of here were carried out it would be useful to the country and to England as well?—Undoubtedly, you cannot get a house for love or money in Dundalk. This district is looking up very much.

Mr. Lindsey.

4035. Would you suggest a free grant to a town like Dundalk?—Yes, to get back some of our own. I have no objection to any other place getting a fair share of what we get a fair share here in Dundalk.

Chairman.

4034-5. Can we have any idea as to what the dredging would amount to?—Yes. We will send it in a few days.

Chairman.] It is rather important.

Mr. Maxwell.] We did not go into details.

Chairman—continued.

ship of the quays, and as a shipper, as well as a Commissioner, I agree that this would meet the existing wants. I have no hesitation in saying that if the improvements now suggested can be carried out the coal import trade of Dundalk can very largely be increased.

4037. You have heard all the evidence that has been given?—Yes.

4038. And do you agree with it?—Yes. If we had more water and more facilities we could develop the port.

4039. You believe that the coal trade could be increased here?—I do, and that we could sell our coals cheaper. Our steamers are often detained waiting on tides.

(The Sitting then concluded.)

TWENTY-SECOND PUBLIC SITTING: THURSDAY, 20TH SEPTEMBER, 1918.

At the MAYORALTY HOUSE, DROGHEDA, at 4.15 p.m.

MEMBERS PRESENT:

Mr. Wilson Fox, M.P., Chairman of Select Committee.

Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.

Mr. Matthew Keating, M.P.

Mr. Walter Hudson, M.P.

Mr. PHILIP MACNULTY, Secretary.

SIR ARTHUR SHIRLEY BENN, M.P., IN THE CHAIR.

Chairman. May I say first of all why the Sub-Committee is here. On the 5th of last month the House of Commons appointed a Select Committee for the purpose of considering what steps, if any, it is desirable to take to develop and improve the internal facilities for transport within the United Kingdom, to secure effective supervision and co-ordination, and to ensure that such developments and improvements should be adequate and suitable to meet the national requirements, and to make recommendations. That Select Committee appointed a Sub-Committee, of which

we are members, to investigate and report upon facilities for transport offered by the ports and canals of Ireland; to make suggestions for their equipment and development, and to visit such places as they may consider necessary for this purpose. We have visited a number of ports, and we have now come to Drogheda. We are anxious to get information regarding the transport facilities and suggestions as to their improvement, in order that we may be in a position to report to our Main Committee at the beginning of next month.

Mr. W. T. SKIFFINAGHAN, J.P., Mayor of Drogheda, representing the Corporation and Harbour Commissioners of Drogheda, called in; and Examined.

Chairman.

4040 You have a statement to make?—Yes, I represent the Corporation and Harbour Commissioners. On their behalf I bid you welcome, and hope that as the result of your visit something will at last be done to aid us to develop this district. The town of Drogheda is built on the banks of the Boyne waterway. Extraordinary as it may seem, it derives comparatively little commercial benefit therefrom. The condition of the port to-day, regarded in the light of modern facilities, is very backward, and the state of the river from bar to the port, and the canal from the port to Navan, is worse than it was 30 years ago. We are without railway connection to the quays, the railway station is a mile outside the town, and to make matters worse is at a very high level. The development of the Boyne Waterway is worthy of serious consideration. The port should be non-tidal with railway connection; the canal should be made non-tidal by the construction of a lock at Demeskin's Bridge or the deepening of the channel of the river between Oldbridge and Drogheda, a distance of three miles, and the control of the entire Boyne Navigation should be vested in one authority. So as to serve the district for which the port of Drogheda is the natural outlet and open up connection with the Midlands and the West, the line of railway sanctioned by Parliament in 1863 under the Mullingar Kells and Drogheda Railway Bill should be constructed. The Bill was approved by the County Councils of Meath, Louth, Westmeath, Longford and Roscommon; the Grand Jurors of Louth, Meath, Westmeath and Longford; the Corporation of Drogheda; the Drogheda Harbour Commissioners, the Drogheda Chamber of Commerce, the Urban Councils of Kells, Navan, Mullingar and Longford; the Rural District Councils of Navan, Kells, Delvin, Mullingar, Killybeggs, Aldoe, Meath, (Drogheda Union) and Ballymore; the Unions of Bailinaghoe and Grauard; the Lieutenants, Deputy-Lieutenants and Magistrates of County Meath; the Cattle Traders' Association of Ireland; and public meetings held in Mullingar and Drogheda, thereby indicating how wide an interest was taken in the matter. It was anticipated that, upon the completion of the railway, the Boyne Waterway would no longer flow backwards in its course, but become a part of first-rate importance, with the hinterland behind deriving immense benefit. Mr. Bryce, when Chief Secretary, promised a grant of £50,000 for the improvement of the port if railway connection were made. When, however, the support of the local bodies

Chairman—continued.

had been secured and the Bill passed through Parliament, in the face of very strong opposition from vested interests, the Lancashire and Yorkshire Railway Company, who had taken powers at a Wharfedale meeting to subscribe capital up to £250,000, entered into a pooling arrangement with the London and North-Western Railway Company and dropped the scheme. They had earlier acquired the interests of the Drogheda Steam Packet Company, Ltd., and so were in a position to provide a competitive route. The weekly sailings from the port have steadily been reduced; 20 years ago there were 14 or 15 in a week, to-day there are about two. The Boyne Canal was constructed by the Irish Parliament, at a cost of a quarter of a million, and for a long period had considerable trade. It is almost derelict now. The County of Meath and the important and growing town of Navan could avail of the Port of Drogheda if the canal were improved as suggested. If the facilities indicated were provided important established industries in Drogheda would develop considerably. All our industries are handicapped for want of railway connection and railway extension to the Midlands and the West. Our industrial future depends upon them. The Drogheda Chemical Manure Co., Ltd., who cart 40,000 tons annually to and from the present railway station at a high cost, are, under existing conditions, cut off from trade with the Midlands and the West. With railway connection and canal improvement they could build up a large trade with the whole district stretching from Drogheda to Galway. Their present annual output of manures exceeds 20,000 tons. Messrs. McCann and Hill, Ltd., and the Drogheda Cattle-Milling Co., Ltd., have an extensive trade in spite of unsatisfactory conditions. The quantity of oatmeal manufactured annually is 25,000 barrels, and of wheatmeal 12,000 barrels, which might be doled out without unduly taxing the capacity of the existing mills. Under present conditions this large output has to be carted from the quays, where the mills are situated, to the railway station, a distance of one mile, the greater part up a stiff gradient. The pre-war imports of maize, ground, amounted to 4,000 tons. The existing mills could deal with four times this quantity. The limited territory to which the firms mentioned are restricted through want of railway facilities is only one obstacle; the insufficiency of water in the river presents the most serious ordinary obstacle of nature, the smallest of which should be 2,500 tons, which would require 18 feet of water. Only steamers of 400

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MR. SKEFFINGTON.

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tons can be employed landed at Dublin or Belfast, which represents a per-ton loss of 10s. per ton, thereby curtailing the trade to a very small radius. The hindrances to development of the oatmeal, wheatmeal and Indian meal industries apply with greater force to flour milling. There are both capital and energy in Drogheda to run a large roller plant, and the oatmeal and bran—would be of great advantage in cattle and pig feeding, but, without a market westward, a twelve-week plant could not be kept running. The corn now being raised in County Meath would find its way to Drogheda under improved conditions. These milling firms could open a trade to the Midlands and the West from which they are now cut off. About 60,000 tons of coal are annually carried over the Great Northern Railway and the Midland Great Western Railway to towns for which the Port of Drogheda should be the distributing centre. We are compelled to look on at towns quite close to us being supplied from Newry, Dundalk and Dublin. Less than 1,000 tons of coal are sent over railway from the Port of Drogheda. Boats with coal must be off 30 feet from the quay wall, so that modern methods of discharging are not possible, and discharge by manual labour, coupled with the high cost of cartage, make it quite impossible to compete with the towns named, and so the Port of Drogheda is deprived of a trade to which it is fairly entitled, and the consumers have to pay an increased price. The imports of coal into Newry (Newry and Waterport) last year were 100,325 tons, Dundalk 118,906 tons, Drogheda 29,571 tons. Under adverse conditions a large timber trade is carried on. About 10,000 tons yearly are handled, 3,000 being manufactured and 7,000 tons shipped green. The same remarks as to cartage apply to this industry, and, of course, a trade with the Midlands and the West cannot be developed. Large firms, such as the Byrne Spinning and Weaving Co., Ltd., Robert Usher and Co., Ltd., linen manufacturers; the Drogheda Foundry; the Castleblinham and Drogheda Breweries, Ltd.; Messrs. Woolsey, Jameson and Co., Ltd., malsters and distillers; Cahill and Co., Ltd., book printers; as well as smaller firms and traders are severely handicapped by high cartage rates to the railway station. The Irish Chilling Meat Co., Ltd., have acquired extensive premises, and are at present constructing an abattoir with provision for dealing with 140,000 head of cattle per annum; and sheep, pigs and poultry, also a tannery and a factory to deal with 10,000 hides per week. The largest tannery in Great Britain only deals with 8,000 hides per week. The national importance of this huge industry, so far-reaching in its possibilities, is worthy of special consideration, it necessarily depends upon a supply of cattle transported cheaply to Drogheda and improvement of the port, and if, on no other ground, the railway extension to Mullingar and connection with the quays with portal improvements should be undertaken. I could not too strongly emphasise the importance of a connection from Kells to Mullingar. A large building at Slane, formerly used as a cornmill, is now

Chairman—continued.

being converted into a flax scutching mill to deal with the development of the flax industry. The improvement of the canal—there is a connection to it from the mill—would be of great service to this new industry, an industry of a nature deserving every assistance from a national standpoint. The whole agricultural industry is affected. There are 400 square miles between Oldcastle and Mullingar not served by a railway. The breaking up of 20 per cent. of the grazing lands of Meath represents a large tillage area, and the cattle and sheep fattened in Meath, and which will now find a market in Drogheda, come from the Midlands and the West, so that railway connection is more important and more necessary than ever. Connacht cattle and sheep are the most suitable for Westmeath, Meath and Louth; they come round by Dublin, the rail journey takes from ten to twelve hours, and because of this the beasts deteriorate 10s. per head. With railway connection the journey would be reduced from four to six hours, and thus avoid deterioration. There are 1,647 cattle fairs held annually in counties Westmeath, Longford, Roscommon, Galway and Meath. The fishing industry could be developed to a very large extent if the river were so improved that motor fishing vessels could at any stage of the tide put their cargoes of fresh fish on rail at the quays instead of carting many miles from Clogher to the Great Northern station. A big firm have agreed to take 110 acres of foreshore for a large shipbuilding yard, and have given a definite assurance that, as well as smaller ships, concrete ships of 7,500 to 8,000 tons would be constructed if the channel of the river were deepened and straightened. Some thousands of hands would ultimately find employment in the shipbuilding yard if the river were improved. Various efforts by the local bodies to bring about an improvement have been unsuccessful. Government grants have been made to other districts that did not offer nearly so much prospect of return for the outlay. The trade of the town and district has suffered. The population has gone down, and the trade of the port has declined in a marked degree. Merchants have not been able to compete with districts possessing greater facilities, and consequently their trade has been diverted. I trust the sub-committee will come to the conclusion, when they have heard all the evidence to be given here to-day, that a strong case has been made out for the development of this district, and that they will recommend that such State assistance shall be given as well place us in a position to develop our industries and our natural resources and open up trade with districts from which we are now unfairly cut off. The Chief Engineer of the Department of Agriculture and Technical Instruction, Mr. Oliver, will give evidence in relation to the condition of the port and the canal, and representatives of the various industries I have referred to in my statement are present to give such detailed information as the sub-committee may ask for.

Chairman.] We are much obliged to you for your statement.

MR. CHARLES DEANE OLIVER, B.A., M.Inst.C.E., Engineer to the Department of Agriculture and Technical Instruction for Ireland, and sometime Ireland, acting as Temporary Consulting Engineer and Examined.

Chairman.

4041. I understand you are Engineer to the Department of Agriculture and Technical Instruction for Ireland?—Yes.

4042. And you are Consulting Engineer to the Drogheda Harbour Board?—I am not fully so, but I am acting in that capacity for the moment. My services are lent by the Department.

4043. So that for the moment you are really acting for the Drogheda people?—Yes. The Department are not concerned in this matter officially. I have been requested by the Joint Committee representing the Corporation, Harbour Board and Mercantile interests of Drogheda, to submit to your Commission a statement on the engineering aspects of proposals for the improvement of their harbour. I have the more pleasure in doing so in view of the magnitude of the advantages obtainable as compared with the expenditure needed to allow of their realisation. I have been now for nearly 30 years constantly employed on the

Chairman—continued.

design and construction of harbours and other works chiefly for the development of fisheries by the Department and Board. I first came into touch with Drogheda Harbour in 1907, when the local authorities asked for assistance in regard to the dredging of the bar by the use of the suction dredger which, at my instance, the Department had with markedly successful results provided for dealing with Arklow Harbour. Since that date I have given considerable attention to the question of the maintenance and possible improvement of Drogheda as a port, and have drafted several schemes dealing with it, ranging upwards in importance from such as dealt merely with the prevention of deterioration of existing works, and some mitigation of the extreme danger of the conditions existing on the bar, to more or less complete schemes for the development of an up-to-date commercial port. With any historical survey of the original conditions of the port or its development it seems unnecessary to trouble

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trouble the Committee. Suffice it to state that, in the past, extensive works embracing the provision of quays, the construction of an extensive system of training walls in the river and on the bar, and considerable dredging of the river were carried out by means of funds provided locally, and that up to some 30 years ago the port was fairly abreast of the times, although the entrance was always unsatisfactory and dangerous. The position to-day is this: The quays afford a fair extent of berthing, but only accommodate vessels approaching at high water and lying on the ground. They are approached by a channel $\frac{1}{2}$ miles long. This is somewhat tortuous and difficult of navigation, but quite practicable in this respect for cross-Channel steamers and overseas vessels of the class likely to frequent the port. The channel has, however, a depth of only some 6 feet at low water of spring tides, equivalent to 17 feet at high water neap tides, while its entrance is closed by a bar having only a depth on it of 5 feet at low water of spring tide, say 16 feet at high water neap tides; and that on a line of approach by which vessels must at the worst part lie broadside to the sea, and travel dead slow in order to negotiate a very sharp turn at the entrance to the river channel. Comment on this description of the entrance is unnecessary. I have no hesitation in saying that the minimum scheme of improvement that will be of any material use to Drogheda will be one embracing such improvement of the bar as will allow cross-Channel steamers, suitable for the cattle trade, to cross it safely in moderate weather in all but the very lowest states of tide, and in bad weather at or near high water at least, so as to reach safely inside the river, with the provision of railway communication with the quays. To secure, however, a condition that can be considered economically sound there must be further included the improvement of the river channel up to the quays, to such an extent as to allow the steamers to pass up and down at practically all states of tide, thus rendering the port non-tidal for cross-Channel service. In connection with this the improvement of the quays or provision of some other kind of landing-accommodation, such as wharves or floating landing stages, will be necessary. A further very small but important improvement would secure the provision of a non-tidal connection between the river at the quays and the canal system known as the "Boyne navigation." There has been made, with the assistance of the Department of Agriculture, and in connection with the schemes I have considered, a complete survey of the bar and of the channel up to the town, and test dredgings were carried out by the Department's suction dredger to ascertain the nature of the material on the bar. A series of charts and plans dating from 1852 was obtained, giving a fairly complete history of the bar for 66 years, or from the construction of the training walls up to 1909. It has been shown, as regards the bar: (1) That the existing highly objectionable "channel," which in fact hardly exists, is not the natural course of the river. (2) That a channel straight out to sea on the best possible line apparently existed at one time. (3) That during the whole period under review—i.e., since the outer training walls were constructed—the river was working to reopen the channel. (4) That it had reduced the width of bar, having on it less than 7 feet depth at low water of spring tides, during that period from 600 to 200 feet, being at the average rate of about 19 feet per annum. (5) That the material on this bar is for the most part gravel and sand, easily removable by suction dredging, with at most a very small quantity of clay, easily removable by a bucket dredge. (6) That the bar in general is very stable, the variations in its general contour being scarcely perceptible. Evidence could hardly be more favourable regarding the prospect of successfully opening and maintaining a straight channel across the bar. An estimate was made, before the war, based on the cost of the trial dredging for opening the straight channel across the bar of 205 feet bottom width, and 15 feet depth at low water of spring tides, which figures were held to provide the minimum accommodation above alluded to. This, together with the provision for certain training walls, amounted to £20,000. In the river since the construction of the training walls there has been little change in the navigable depths, some dredging had been done.

Chairman—continued.

The material is mud and sand, easily dealt with by a bucket or grab dredger, and the pre-war estimate for a channel of 90 feet bottom width, with a depth of 12 feet at low water of spring tides, was £22,000. No definite estimate was made of the cost of quays or dockage, anything from £10,000 or upwards might have been spent on them at the need arose. Certainly that sum at least would have been needed to lease the existing walls secure if dredging to 12 feet were resorted to alongside them. As regards railway communication I have never prepared any scheme. I am, however, informed that some 30 years ago a competent contractor offered to construct a connection from the Great Northern main line to the quays for £15,000 exclusive of legal costs and provision of land, which latter it is considered would have been small; possibly £25,000 would have covered everything. It would appear that the accommodation proposed was at the time considered adequate, but not being in possession of the plans I could give no details of it. A pre-war estimate for providing a non-tidal connection for barges from the quays to the canal was £5,000, which embraced dredging of the channel up to the canal, to give a minimum depth of 4 feet at low tide, and the provision of an additional lock to raise barges to the existing lock, into which they can now only float at high water. It will be seen that the pre-war estimate for the two items essential if the port is to continue working—i.e., the improvement of the bar and provision of railway accommodation—was £45,000, and that for the minimum economically sound scheme, embracing the above, with the improvement of the main channel and the quay, the estimate was £77,000, which the addition of the canal connection brought up to £82,000. The relation of these figures to those which must be put forward after the war is a matter of conjecture. A large portion of the expenditure is, however, in respect of dredging, an item which perhaps will be less affected than most others. The question of a railway connection between Mullingar and Kells has been mooted. Of this I can speak with no expert knowledge, and can only say that to anyone with some knowledge of traffic conditions, and who travels much as Meath, Westmeath and Louth, the need of this cross connection between Drogheda and the existing railway system is a most obvious one.

4044. At the present time what depth of water have you got?—At present there is about 19 feet of high water spring tides and about 17 feet at high water on neap tides in the river and about a foot less on the bar.

4045. No vessels drawing more than 18 feet can come up?—No, except at spring tides.

4046. At spring tides what have you got?—About 35 feet maximum.

4047. When vessels come up to Drogheda have they got to be aground?—Yes.

4048. It is a good mud bottom?—Yes.

4049. I presume we will have some evidence as to the number of vessels that come up?

The Mayor of Drogheda. The Secretary of the Harbour Board is here, and will give you particulars. He will be able to give you the tonnage and the financial position of the Harbour Commissioners.

Chairman.

4050. Can you tell us anything about the canal, Mr. Oliver?—The canal at present ends about two miles above the town. From the canal to the town, close to the point where you are sitting, is a navigation which is only practicable at high water. The river runs down too much to carry vessels of even the small draft of the canal boats. My proposal was to dredge up that river to such an extent as to give 4 feet of water up to the entrance of the canal at all stages of the tide. The entrance is just at the top of the tidal water. What there is only river water there, you cannot get boats up. We propose to dredge up a narrow channel. The main difficulty is that the sill of the lowest lock is above the level of the water except at high water, and I propose to insert another lock at a lower level to drop boats to the level of the permanent waterway.

4051. What traffic is carried on the canal at the present time?—I am not in a position to give evidence on that.

4052. Can

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MR. OLIVER.

[Continued.]

Chairman—continued.

4052. Can you tell us something about the railway communications?—In what sense.

4053. As connected with the quay?—Yes. At present the railway is situated on the level of the bridge. It is more than a mile from the station down to the low-level bridge down to the quays. The berths of the cross-channel boats are here beside you. There is no communication between the town and the river and the railway, except up the hill by the road to the railway station. The proposals put forward were that there should be a scheme by which railway rolling stock should be put down alongside the quay. The scheme which I have mentioned for £15,000 for construction alone was one on the northern side of the river. It came off a little on the Dandalk side of the river, and came on to the quay under the bridge, came over the road at the bridge, and then dropped on to the level of the quays. I never saw the place. Another scheme was put forward for connection with the Malth line, which would have broken off the branch line about two miles out of the Boyne Valley, but its distance to the junction from the town was an almost insuperable difficulty. The most, I think, I can say about a railway scheme is that the sum of £15,000 for the cost of construction alone of a connection from the Great Northern main line to the quays in an approximate figure at which a railway scheme is obtainable.

4054. Has any effort been made to get the Great Northern to do it?—To do it themselves?

4055. Yes!—I am afraid some of the other gentlemen must give you that information, but I believe so. I think that at that time there were negotiations between Mr. Murphy and the railway company, but at the moment they were not in a position to take up the matter. I don't think they have ever offered to do it of their own, so far as I know.

4056. No negotiations have taken place lately with them?—No. For some years past no move has been made in the matter at all, so far as I know.

4057. Drogheda regards it as rather vital to get this railway connection?—Yes.

Mr. Hudson.

4058. Do you consider that the railway connection is vital to any improvements of the port?—I think so.

4059. That is the main project?—The main project, of first interest, is to improve the bar, and the next to provide railway accommodation.

4060. You put it second?—I can hardly say that I put one before the other. I think that the two things are essential and on a par with each other.

4061. You realise the physical difficulty here in the railway?—I don't think there is any. Mr. Murphy propounded a scheme which was obviously a practicable scheme. Whether it was the most perfect scheme I cannot say, or whether it came to the right spot, but I know that Mr. Murphy offered to finance and to construct, for a certain sum of money, a certain line, and that that line was accepted at the time as being more or less fairly adequate, and, from what I know of Mr. Murphy, I have not the slightest doubt the scheme was a sound one. I am aware there were difficulties as to the gradients and that the Great Northern engineers objected to the gradients. I am only talking to some extent from hearsay. That scheme, I understand, was modified and something added to it to provide for the necessary improvement in these gradients.

4062. Can you say why this scheme fell through?—No.

4063. Would the Harbour Board be prepared to take up the scheme itself, to build the railway and own it?—I don't know the local views on the matter.

[The Mayor.] We are not in a position to do that.

Mr. Hudson.

4064. The Harbour Commissioners want the railway, Mr. Oliver?—Yes.

4065. But you don't know whether they would undertake it or not?—They want it. They look on it as an absolute necessity.

4066. Would they be prepared to take the scheme in hand or do they want the railway company to take it in hand?—That question I could not answer. You must ask one of the Harbour Commissioners. I don't know enough of their financial position to express an opinion.

Mr. Hudson—continued.

4067. We will leave it there. It was stated, I think, in evidence that, owing to the Lancashire and Yorkshire Railway Company and the London and North Western Railway Company pooling their interests that the port had been left somewhat neglected—I heard that in evidence.

4068. Do you know anything about that?—No.

Mr. Field.

4069. I understand you are acting practically as Engineer to the port?—I am acting as Consulting Engineer in this matter. I am not concerned in the working or management of the port.

4070. You say the bar must be deepened first?—Yes.

4071. There is a sharp point in the river?—Yes, I don't think that is of material importance.

4072. You think the deepening of the river is of material importance?—Yes. For any port to be a practical cross-channel port, it should be non-tidal, or very nearly so.

4073. And in addition to that, it should have a railway connection?—Yes.

4074. Is there a dry dock in this port?—No.

4075. Or a graving dock?—No.

4076. Neither one nor the other?—No.

4077. You are connected with the Department of Agriculture, and the Department takes a great interest in fisheries?—Yes.

4078. Are there any facilities here for fishing boats?—No.

4079. Have you had many fishing boats coming here?—I don't know the place at all in connection with fisheries, but there is no question that the opening of the bar would provide a very much needed harbour of refuge for fishing boats which does not exist between Howth and Dandalk.

4080. Howth is not a harbour of refuge?—There is no harbour of refuge along this coast. With such a channel across the bar as I propose motor boats could, practically, enter here at any time and in any weather.

4081. As an official of the Department you are of opinion that these improvements are essential?

Chairman.] Mr. Oliver is not here as an official of the Department.

Witness.] I cannot give any expression of opinion on behalf of the Department.

Mr. Field.

4082. In your present position as consulting engineer for the time being you are in favour of all these improvements?—Emphatically.

4083. And in your opinion they are necessary for the development of the port?—Yes. If the improvement of transit between the two countries is a matter of importance, then most emphatically I say these improvements are necessary.

Mr. Field.] That is all I want.

Mr. Lindsay.

4084. Do you know much about the Boyne Canal Navigation?—No, very little indeed. The Boyne Navigation has been dying for a good many years.

Mr. Field.

4085. Is it dead?—I imagine it is dead at the present moment. I know some attempt was made to revive it under good auspices, but I rather think they had not enough capital, sadly.

Mr. Lindsay.

4086. Someone is Navan, it is said, got hold of the navigation?—The Boyne Navigation went into liquidation some years ago, and the concern was purchased by an individual in Navan.

4087. This company that went into liquidation took over the navigation from the Board of Works?—I don't think so. I think it was a navigation company which was a statutory company.

4088. What is the idea of putting the new lock at the old bridge rather than down lower at Drogheda?—There may be no choice in particular. I adopted that course as the more obvious and the cheaper, and, also, it avoided any interference with the main channel to the town. A lock down here might have produced complications in respect of flooding and various other matters.

4089. This

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Mr. OLIVER.

[Continued]

Mr. Lindsay—continued.

4090 This Boyne navigation is a short navigation of about fourteen miles?—Yes. If you have a non-tidal navigation you could possibly have a daily service.

Chairman.

4091 If there a pier at Claghier?—Yes, a deep-water pier and a curious little dock which holds a few boats.

4092 Is that used solely for fishing?—Yes, it is a little residential harbour for the local fishing boats. The deep-water quay was intended as a landing-place for the little harbour is there. I proposed a small scheme some years ago for the improvement of it.

4093 What do they do with the fish they land?—Cure them.

Mayor [The Claghier Head people have a deputations here.

Chairman.

4094 What depth of water have you outside the bar?—As far out as we want we got 25 feet at low water. You get, very quickly, all the water you want.

Captain DAVID LROSS, of the Lancashire and Yorkshire between Drogheda and Liverpool,

Chairman.

4095 You are connected with the Lancashire and Yorkshire Railway Company?—Yes.

4100 The company have a steamer service between Drogheda and Liverpool?—Yes.

4101 Will you tell us something about the port?—I am master of steamers running here for the past twenty-five years. It is very dangerous running in on the bar. When we are running in with the two leading lights in line in a south-east gale, we have the wind and the sea on the ship's beam, and when she gets into the shallow water she skids. Occasionally we cannot come in. Perhaps once every winter I have to go to Charliford Lough or Holyhead.

4102 Where do your boats run to?—To Liverpool.

4103 What is the size of the boat?—She is about 250 feet, with a maximum draft of 13 feet loaded.

4104 Have you any difficulty except at the bar?—Of course, the river is narrow too, but the ships we build for the river are of light draft.

4105 What is the tonnage?—Net registered tonnage 450. Of course, a great deal of that is passenger space. The great drawback for a shipowner is that he has to build a boat of a light draft for the river, and she is not good or profitable for any other place.

4106 What are they fitted for carrying?—Live stock?—They are good live stock ships, but most of the cargo is carried on the main deck.

4107 What do you take away from here, besides cattle?—Eggs, oatmeal, produce and foodstuffs.

4108 That is the bulk of your cargo?—Yes.

4109 What do you bring in?—General cargo of all kinds.

4110 Is your general cargo intended for Drogheda or for distribution in the neighbourhood?—For both. We don't get much inland cargo on account of the cost of bringing the stuff from the quay to the railway. That has killed our inland trade. It has to be taken from the quays and sorted to the railway station.

4111 You have no motor lorries?—No, sir, we have no motor lorries. There are a few in the town. A few local merchants have them for their own use.

4112 They have not been used for taking goods from the steamer to the railway?—No.

4113 I suppose your boats do not require more water here at present, provided you get that facility?—We require more water even for those boats.

4114 If there was more water here, would your company send bigger boats?—Well, I think they would send more boats. They might have a better sailing. I don't know that they would send bigger boats. They would not be required. We could have a better service.

4115 Do you mean to say that you would not be able to get sufficient cargo here for export?—I am sure we would if we had a better service.

Chairman—continued.

4096 If you cut a channel there, would there be any danger of it silting up?—There is very little danger of silting.

4097 What depth of water could be reasonably obtained over that bar?—I have made it 13 feet at low tide, about 27 feet at the top of spring tides, and 24 feet at the top of neap tides. It is all gravel and sand. At one spot we struck clay.

4098 If you have got 25 feet outside, and you cut sufficiently low, you ought to have no sediment left?—You always have a tendency, where the river current stops, to drop anything carried by it.

4099 Would it not be better to try and get a proper depth at once?—At the time I was preparing that I was looking to the financial limits. I should very much prefer to dredge 30 feet on low water. That would make the port a really good-class port. In the way of railways, I am at present only concerned with the connection from the railway to the quays.

Railway Company, Owners of Steamers trading called in; and Examined.

Chairman—continued.

4116 If you had bigger boats you would be able to get cargoes in and out?—We don't require them for our services.

4117 Cargo boats are going to be bigger and the bigger the boat the cheaper it is run?—Yes.

4118 And if you want to get cheap rates you want big boats. Would you have sufficient cargo here to justify bigger boats?—Yes, if we had a better harbour, I think so. We would have a more regular sailing. We would not be led to the tide.

Mr. Field.

4119 I understand your principal complaint against this harbour is that it is a tidal harbour, and that you cannot have a fixed hour for departure?—That is one of the complaints of the company.

4120 You purchased the interest of the Drogheda Steamship Company?—The Lancashire and Yorkshire Company did. I was in the service of the other company.

4121 What is the reason the sailings now are reduced from 14 to practically two sailings a week, and what was the reason that the Drogheda Company were able to give more sailings—the sea did not change?—No.

4122 Or the Channel?—No, but the Drogheda Company sold out. I don't know for what reason. I was simply an employee.

4123 I want to know why it is that the company that you represent could not give the same number of sailings that the Drogheda Company did?—I have not the best idea. I come here as a sailor to tell what I know about the port, and I have nothing to say with what my employers do.

4124 There are two sailings a week?—We have three sailings—one on Wednesdays and two on Saturdays.

4125 Do you think the present position of the harbour and the bar and the want of dredging in the Channel have prevented your company getting more live stock?—I am sure at this.

4126 And as a sailor you think that is prejudicial to the carriage of the live stock?—Yes, because many nights I have lain there with a load of live stock on board and could not get out.

4127 How long had you to lie there?—12 hours.

4128 Were the cattle fed during that time?—They were kind of fed. Hay was given to them on board.

4129 I know that there was a serious depreciation in the cattle when they got to Liverpool?—That is quite right.

4130 Do you think that would be obviated if the proposed improvements were carried out?—I am sure it would, because the ships would be able to sail at any time. If we had a better harbour I for one would not stop in.

4131 Yes.

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Mr. BYRNE.

[Continued.]

Mr. THOMAS BYRNE, Secretary to Drogheda Harbour Commissioners, called in; and Examined.

Chairman.

4131. You are Secretary to the Drogheda Harbour Commissioners?—Yes, sir.

4132. You can tell us something about the condition of things here?—In the first instance from a geographical standpoint, the port of Drogheda is the direct road from the great cattle-raising county of Meath and the agricultural county of Cavan. It is the shortest route to Liverpool and the other great English centres, and there is every railway facility for taking all these commodities as far as the town of Drogheda is concerned. The great drawback is that there is no railway connection with the quays. There is a growing tendency for expedition in transit. With the great increase of that demand the trade of our port has been diverted. This (pointing to a picture on the map) is Drogheda Station. There is a line of railway going into Navan, and it is continued down to Oldcastle, a distance of 49 miles. At Navan, which is the principal town in Meath and only 15 miles from the port of Drogheda, there are four railways converging, one going through the Co. Meath and up to Cavan, another to the northern part of Meath and going into Kingscourt, 43 miles. These districts in the natural course of things should trade through Drogheda, and with a line of railway connecting the towns of Mullingar and Kells—a distance of only 18 miles, we would be entitled to a percentage of the traffic from the Midlands, as Drogheda would be the nearest port, by a few miles, to Mullingar. In the ordinary course of things, we claim that we should have our legitimate share of the traffic of these districts. Up to 1892, for many years, the average income of the Harbour Commissioners was £4,500. In that year the revenue was £4,535 3s. 6d., and the tonnage for that year was 135,679. In 1895 the tonnage decreased from 135,679 tons to 135,948 tons, and the revenue decreased from £4,500 to £4,370 14s. 1d. In 1900 the tonnage decreased to 118,048 tons, and the revenue decreased to £3,764. In 1905, the tonnage decreased to 83,521 tons, and the revenue decreased to £3,318 14s. 4d. In these five years from 1905 to 1906, there was a fall in revenue of £746 3s. 6d. The revenue in all these years was about equivalent to the expenditure. In 1910, the tonnage was 62,784 tons and the revenue £2,520. In 1915 the tonnage was 57,815 tons and the income £2,122. 1917 is not, of course, a normal year. The tonnage in that year decreased to 53,679 tons and the revenue to £2,122. Here is what I draw your particular attention to. The tonnage in 1892 was 135,679 and the revenue £4,535 3s. 6d., whereas in 1915 it decreased to 57,815 tons and its revenue to £2,122.

4133. Are you giving us 1915 instead of 1915?—I was taking them in the order of five years.

4134. Give us the figures for 1907?—62,784 tons and the revenue £2,520.

4135. How do you account for the decrease in your tonnage?—By the diversion of traffic. We attribute that diversion to the fact that the necessity for expedition in transit has become so essential, and the want of connection with the railways and the quays is the sole cause of it.

4136. Where has the trade been diverted to?—To other centres where the quays are connected with the railways—the neighbouring ports, perhaps.

4137. Is it a fact that all these ports have lost trade owing to the war?—I will go back to 1920, before the war, if you wish. In 1920, the tonnage was 62,784 and the revenue £2,520 as against 135,679 and £4,535 in 1892. That is before the war. It is a gradual decrease. If we had no war at all we would go down. Our position is that, in 1892 we raised a loan of £22,000. That was to pay off a former loan contracted in 1855. The condition of that loan was that we were to establish a sinking fund that would be equivalent to pay off the debt in 1922. You observed from the figures I gave you that we had no money to apply to the reserve fund.

4138. You have not got the sinking fund?—No, we have no money. If I deal with the year 1915, our revenue was £2,122. First and foremost, we were obliged to pay £978 in interest to the bondholders, and we were compelled to maintain and light the quays. Our position, then, is, that we ask the authorities to give us a grant to improve our harbour so

Chairman—continued.

that we could have regular sailings. We are not in a position to make any improvement. We were obliged to sell our dredging plant three years ago. We invested the proceeds of the sale in War Bonds.

4139. How much does that amount to?—£3,000.

4140. You had a dredger and sold it?—Yes. We were obliged to do so.

4141. And you allowed your harbour to go without dredging?—We have no fund at our disposal to dredge.

4142. Did you apply to any Department for funds to enable you to keep your harbour dredged?—We are applying to you now.

4143. We do not represent the Government. Did you apply to any Government Department?—Yes, and they would not give us a grant.

4144. To whom did you apply?—To the Development Commissioners. They would give us the loan of money, but we could not create a new loan as long as the present loan exists.

4145. They offered you money on loan?—Yes, but we could not create a new loan.

4146. If you had got the loan from the Development Commissioners to put your port into decent condition, would you not have got more trade, and therefore increased your revenue?—We had no money for paying this loan that we have, and if we created a further loan we would have nothing at all.

4147. You mean that any money that is expended now will not bring in any return?—We have very little to expend except the Government comes to our relief and dredges the river for us and makes some improvement. That is the position we are in.

Mr. Wilson-Fox.

4148. When was the present trust of the harbour authority founded?—It was constituted in 1793. In 1843 it was established in the present form.

4149. What are your borrowing powers?—£60,000.

4150. So you have got a margin left to borrow?—Yes.

4151. Have you made efforts to raise money?—We have no money to pay further interest.

4152. I understand if money is spent there is a prospect of having money to pay the interest?—That would not bring in any mere revenue to us.

4153. Then anybody who puts money into this port does it with the certainty that he will lose?—Not to lose it. The present bondholders will not permit any new loan to be created.

4154. It is conceivable that you might raise the money to clear them off?—Yes.

4155. If you get money you don't think you would get revenue?—It is the trade we want.

4156. Can you get the trade without spending a lot of money?—If the railway connection was there.

4157. Don't you think if the port was improved that the Railway Company would make the connection?—I don't know.

Mr. Hudson.

4158. Don't you think you are putting the cart before the horse when you want the railway before the harbour?—Get the railway and then you will get the trade.

4159. You believe that if this port were improved that you would serve a very wide district?—Yes, if we had facilities for expedition in transit so that there would be no disconnection here carting stuff from the railway station, a distance of a mile.

4160. Would you advocate the deepening of the river sufficient to take a vessel at any period?—Yes, but I would not say that that would be better than the railway connection.

4161. You think that you would draw a very large amount of trade to your port from the improvements that might be made by the railway connection?—Yes.

4162. You want an extension to tap Mullingar from Kells?—Yes. We are as near a port to Mullingar as any other port—in fact a few miles nearer. We are nearer than Dublin to it.

4163. Have you any security that you would have a through train from Mullingar to Drogheda, even if you had that extension?—I am not in possession of any facts in connection with that project.

4164. Do

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Mr. BYRNE.

[Continued]

Mr. Hudson—continued.

4164. Do you know that the distance from Mullingar to Dublin is only fifty-one miles, and is it not a fact that there are through trains from Mullingar to Dublin?—Yes, but there are other questions involved. We never thought of competing with Dublin, but we want a fair percentage of the return traffic. There is no rivalry between Drogheda and Dublin. If that railway were made it would lessen the traffic of Dublin, while it would increase our traffic. The greater the facilities for the inland districts, the greater traffic in every commodity—merchandise and live stock.

Mr. Fidd.

4165. You are Secretary of the Harbour Commissioners?—Yes.

4166. Don't you think the bar is a great obstacle to the development of the port?—It is the starting point.

4167. If you don't get over the bar, you cannot get into the port, and that is the first preliminary to the development of the port?—Yes.

4168. You have no design?—No.

4169. Why did you sell it?—Because we had no means of working it.

4170. What did you get for it?—£1,000 or £1,100.

4171. Was it very old?—Yes, but she did excellent work in this district.

4172. And you sold her for £1,100. You must be very hard up when you sold her?—Yes.

4173. Were you obliged to sell your barges?—Yes.

4174. With regard to the railway connection, have you raised any agitation about this railway?—What's the use.

4175. Did you ever get anything without asking for it?—We imagine we are asking now.

4176. I am afraid that is a fight of the imagination. With regard to the decrease in your revenue, you hold that the reason of that graduated decrease has been the want of facilities with which other ports are provided?—That is quite true.

4177. Have you any cranes here?—No.

4178. And, notwithstanding that, you, as Secretary to the Harbour Commissioners, said that it is your opinion—with which I agree—that the absence of facilities is the main obstacle to the development of the port. You have no cranes?—No. If we developed the trade we would have to buy cranes.

Mr. W. J. D. WALKER, Chairman, Drogheda Chamber of Commerce, and Director of the Byrne Spinning and Weaving Company, called in; and Examined.

Chairman.

4189. You are Chairman of the Drogheda Chamber of Commerce?—Yes.

4190. And you are also a Director of the Byrne Spinning and Weaving Company?—I am.

4191. Will you tell us something about the lack of necessary railway connection with the quays?—So far as the want of railway connection with the wharf is concerned, it interferes with the development of the entire district. If the railway connection was made, Drogheda would be the natural port for the arrival of cargo from the large hinterland behind Drogheda. The railway companies in Ireland are only interested in carrying coal and other commodities long distances and are not very interested in working short lines. As far as I know, the Great Northern Railway Company has never lifted its finger to do any good for Drogheda. The bridge they have constructed leaves the port high and dry, and is a monument to the railway company's bad engineering.

4192. Do you know were they obliged to get it up to that height?—No. It is very ornamental.

4193. How does the lack of the railway connection affect the Spinning Company?—Not very much. On account of the state of the bar and the irregularity of the sailings, we often bring cotton by rail via Dublin and via Dundalk. I should point out that I think it has escaped the attention of the Secretary of the Harbour Board, when he was giving you some recent figures, that there were some months during which traffic was entirely interrupted on account of strikes.

Mr. Wilson-Fox.

4194. Was that in 1915?—Yes. I don't take the same hopeless view as the Secretary does of the har-

Mr. Fidd—continued.

4179. Are your borrowing powers exhausted?—No, except in this respect, that we can create no new loan until this loan is paid off.

4180. Could you not make another loan and pay that loan off?—What could we pay the interest with? This existing loan will arrive at maturity in 1922.

4181. The whole foundation of your application to this committee is that if you had increased facilities your revenue would increase?—Yes.

4182. That being so, is there any reason why you should not obtain a loan?—We can create no new loan until the existing loan is paid off. We have no revenue to pay the interest on a second loan.

4183. Was there an understanding or agreement between the Drogheda Steam Packet Company and the Lanesboro and Yorkshire Railway Company that when they purchased the local company here, equal facilities would be granted by them?—Not that I am aware of. I don't know that there was any binding contract, so far as I am aware of.

4184. I was informed, as President of the Cattle Traders' Association, that when the English company obtained possession the same state of things would be continued as existed before the purchase?—I don't know.

4185. Was there ever shipbuilding in this port?—Never in my recollection.

Mr. Keating.

4186. The Mayor in his statement mentioned that Mr. Byrne, when Chief Secretary, proposed to grant £50,000 for the improvement of the port if railway connection was made?—I have nothing to say to that; I have no information upon the point.

4187. Do you know that the local bodies secured an Act from Parliament, in the face of very strong opposition, in order to carry out this railway connection?—You know the Act was obtained?—I am not quite certain about that. I am not in a position to say anything about it. I have no absolute knowledge of these things. This may be absolutely correct.

4188. Is your Board responsible for keeping the river from Drogheda to the Old Bridge?—No, sir, we stop at the bridge here.

Mr. Wilson-Fox—continued.

bour. I can quite understand Mr. Byrne, seeing the returns going down year after year, taking a hopeless view. I, however, don't take the same hopeless view of the harbour. If you look at that map of Ireland you will see the hinterland that should be served by the port of Drogheda, which is the natural outlet for an immense amount of traffic were the harbour connected with the railway and the Mullingar railway made. As a matter of fact, developments have taken place inside the last six months which will make Drogheda probably one of the largest cattle markets in the country. Mr. Platt, of the Irish Cattle Company, will want anything up to 150,000 beams per year for cold storage for the Government and others. In regard to the dead meat trade, I understand you can put four carcasses in the same space as one live animal at present. That will assist the shipping companies in every way. If this difficulty in regard to transport were got over, the port would develop. I should say regarding the bar that I applied, and a late mayor applied, to the Development Commissioners. I went to see Mr. Nash, the Secretary, in London. I had Mr. Ennis here. We went in for a very small scheme, and that related to the present dangerous burning at the bar. On a dark winter night, with a gale blowing from the east, it is almost impossible to pass over the bar, and vessels have had to go back to Liverpool. We applied to the Development Commissioners for a grant. We had a good many interviews, and a great deal of correspondence, and the result was that they proposed to offer as a loan at 4 per cent.

4195. What year was this?—1913. We expected a grant as they had £500,000 annually to spend on work.

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Mr. WALKER.

[Continued.]

Mr. Wilson-Fox—continued.

work of that sort. It might appear, from some of the questions, that the Harbour Board should have taken up the loan. There is a clause in the debentures that provides any further loan until the existing loan is paid off. I thought it was an insult for the Development Commissioners to offer us a loan instead of a grant when they had £250,000 a year at their disposal to spend. The conditions involved the Harbour Board, the Corporation, and the Lancashire and Yorkshire Railway Company in a guarantee, and the Board of Works and other Government Departments, as well as the Treasury, were concerned.

4295. The first debenture holders would not, I suppose, have objected to a mortgage behind them?—They were not asked individually.

4297. Would it be absolutely impossible to raise a second mortgage behind the first?—We would be against the Treasury. I am sure they would not give one loan to pay off another.

4298. I understand the Harbour Commissioners have got unexhausted borrowing power of £40,000, if they could get money?—Yes, but I understand that we cannot borrow until we have cleared off the existing loan.

4299. Your view would be a less ambitious scheme and leave the railway connection to look after itself?—We do not pretend at all that the scheme then put before the Development Commission was a really up-to-date one, but we thought something should be done to get the bar deepened and a straight course opened out.

4300. That that would improve your trade apart from anything else?—The connection with the railway is necessary. Mr. Oliver said that the proposed dredging scheme he submitted would enable vessels to come in practically at all stages of the tide.

4301. Would not that alone be of great advantage to the port and probably bring railway connection about?—Yes.

Mr. Field.

4302. Is it not your opinion first to take away that sharp corner at the bar?—To make the bar sufficient to take traffic.

4303. You want that point taken off?—Yes.

4304. Did you ever go into the cost of that?—Mr. Oliver has the figure.

Mr. Oliver: The application made to the Development Commission merely covered the cost of dredging a straight channel of approximately the same depth of the existing channel. The cost of that, as far as I remember, was £10,000. The cost of a 12-foot cutting across the bar is, I think, £25,000.—That would have

Mr. Oliver—continued.

enabled vessels to get inside the bar at practically any stage of the tide. I stated that, to produce an economic scheme, it was necessary to go farther and to allow the vessel once it got inside the bar to go up to the pier.

Mr. Field.

4305. Mr. Walker, do you regard the railway connection also as important?—Personally, it does not interest me at all, but it is vital to the town.

4306. Is it your opinion that if the improvements suggested here to-day were carried out they would not only help Drogheda but all the surrounding country?—Yes.

4307. And enable an increased volume of food to go across the Channel?—Yes.

Mr. Keating.

4308. I notice that, in a speech made yesterday in Dublin, the Chief Secretary referred to Drogheda and to a company with enormous capital behind it that had been established in Drogheda. Is that the company to which you referred?—Yes. I am not connected in any way with the company. I wish to state that the Chief Secretary rendered very great assistance. It has taken five months dealing with the Treasury and other officials to get permission for the company to spend their own money.

Mr. Wilson-Fox: They have been rather quick.

Mr. Keating.

4309. That company will largely tend to make a commercial success of Drogheda, Mr. Walker?—Yes.

Mr. Lindsay.

4310. Who built the Boyne viaduct?—It was built in 1854 by the Great Northern Railway.

4311. It did not exist then. It was the Dublin and Belfast Junction Company?—It was built before I was born.

4312. They wanted to get the quickest connection between Dublin and Belfast?—They probably did, but it would have taken them very little out of their way to go round.

4313. Would not the gradients be worse?—Not worse, than the sharp curve of which Drogheda Station is the centre. Questions were asked why the Harbour Board sold the dredger. From the evidence of Mr. Oliver you are aware that the dredger required is a suction dredger, and the dredger that was sold was an obsolete one; besides, it would not have done this work

Mr. A. M. ARCHER, J.P., Coal Merchant, Drogheda, called in; and Examined.

Chairman.

4314. You are a coal merchant?—Yes, sir.

4315. And you are going to give us some evidence on the subject of the railway connection with the quays?—Yes. The scheme that I considered was perhaps the best was to take off a connection at the north side. It was considered at the time that it would be the cheapest scheme. It was estimated that the cost would be £15,000, and the land was to be bought besides, and the total that Mr. Murphy undertook to do the work for was £42,000, on condition that the Corporation and Harbour Board guaranteed the interest.

Then there was a deputation from the Drogheda Steam Packet Company to the Great Northern Railway Company. I was at that deputation as Secretary to the Steam Packet Company, and we approached the Directors at the time. They went into the matter, and they did not seem inclined to make the line. They said the gradient was rather stiff. It was decided that the engineer to the Railway Company and Mr. Murphy should go into the matter of gradients. They went into the matter, and afterwards Mr. Murphy said that the improvements would only mean a few thousands.

4316. Is that for a single track?—Yes.

4317. You consider that if you had a single track along the quay, it would do all that you needed?—Yes, and, of course, sidings should be put at different places to marshal the wagons. You can never make anything out of Drogheda until you have the railway

Chairman—continued.

connected with the quays. Another scheme of railway extension was for £100,000, before the war. The deepening of the river and the connection with Mullingar would do a great lot for Drogheda.

4318. How do you bring in your coal?—By tramp steamers from England, and it is discharged on men's backs.

4319. Have not the ships got tackle?—Yes, but the ships cannot be close enough to the quay to discharge.

4320. What distance out from the quay?—4 or 500 feet or more.

4321. They could not put a platform in?—No.

4322. You have one deep-water berth?—Yes, on the east side of the viaduct.

4323. What water have you got there?—I cannot exactly say—about 10 feet at low water. Formerly there was about 14 feet of water, but there is only 10 feet now.

4324. Have you any cranes?—No.

Mr. Hudson.

4325. When you approached the Railway Company, did you ask them to take up the matter on their own responsibility and lay down the line?—We asked them first to do that. This is more than thirty years ago.

4326. They have not been approached since?—Yes, often.

2 B

4327. On

26 September 1918.]

MR. ARCHER.

[Continued.]

Mr. Hudson—continued.

4227 On the last occasion you approached them did you ask the Company to undertake the making of the line?—I don't know of that.

4228 When Mr. Murphy came in, did you ask them at that time to do it?—Yes, and they declined to do it, and the Drogheda Steam Packet Company said, "If we made the line and so on, will you work it?"—and they said they would rather not be asked.

4229 They would not even work it?—No.

Mr. E. C. PLATT, representing the Irish Chilling Meat Company, of Drogheda, called in; and Examined.

Chairman.

4230 You are connected with the Irish Chilling Meat Company?—Yes.

4231 When will it be in operation?—That is rather difficult to say, but I should imagine in or about January, 1919.

Mr. Wilson-Fox.

4232 Have you got the plant?—Yes.

4233 It is simply a question of putting it up?—Yes, and transferring it across.

4234 Where is the mill?—Across the river.

Chairman.

4235 What water have you got?—The place will

Rev. FRANCIS P. MURPHY, P.P., Clogher Head, Co. Louth, called in, and Examined.

Chairman.

4236 You are Parish Priest of Clogher Head?—Yes.

4237 And you desire to give us some evidence?—Yes, sir. I was very glad to hear you ask a question about Clogher Head. It brings me at once down to the point. Sir Arthur Sharkey Begg and gentlemen of the Irish Sea-Committee on Inland Transport, I hope you will permit me to lay before you in brief form some facts in reference to Clogher Head Harbour. Not having read your instructions of reference, I trust you will give me some latitude, and I now respectfully point out to you that we have here (at about eight miles from Drogheda) a harbour on which many thousands of public money have been expended, and, unlike other fishing stations on the eastern coast, we have blue water immediately. Outside the present pier, at low water, we have a depth of over 20 feet, and a little farther out we have 40 or 50 feet at low tide. It is the opinion of experts—gentlemen connected with the Fisheries Board—that the expenditure of a further few thousand pounds would make Clogher Head Harbour one of the best fishing harbours in Ireland. Of course, I speak not of Kingstown Harbour, or Royal Mail Packet station, or of Heath Harbour, on which a million of money has been expended and yet is the sport of the waves in consequence of the drifting sand and silt in of the main entrance. I wish, gentlemen, you could find time to visit our shore and see for yourselves how pitiful it is that the harbour remains incomplete. We have perfect protection from the east and south-east, but, when the wind blows from the north and north-west, we are at the mercy of the waves. On behalf of the fishermen of Clogher Head I would earnestly urge you, gentlemen, to suggest to the Government that the further expenditure of a few thousand pounds would make Clogher Head Harbour a harbour of refuge, not only to fishermen but to the merchantmen, and even to His Majesty's Fleet. The herring fishing of last year was a complete failure, but that was an exceptional year, for the year before, and for many years previously, there were immense catches of herrings landed at Clogher Head. In one year we had 24,000 men of herrings. We had a Mr. McKenna, who cured an immense quantity of herrings. I believe he came for three seasons in succession. And then we have a kippers station capable of turning out an unlimited supply. But, and to say, we have no means of transport beyond improving the few carts and animals in the village, and I am credibly informed that for want of means of transport often in the past the fish were thrown back into the sea. Want of transport facility keeps travellers away from our harbour. Want of transport keeps buyers away. The motor boats and big trawlers pass up and down all day long before our eyes, and, when they come to land their valuable takes

Mr. Field.

4238 Had the Drogheda Steam Packet Company any agreement with the Lancashire and Yorkshire Railway Company that the services would be maintained?—Not that I am aware of.

4239 There was no understanding to that effect?—No. They promised a great deal.

4240 Instead of giving increased facilities they have reduced the sailings to two per week?—Yes.

Chairman—continued.

have to be dropped, so that we can transport from the mills into the steamer.

4241 What tonnage?—About 40,000 in dead meat alone.

4242 Do you expect to send meat on sea?—Practically all. It is a matter of great importance to us that the river should be dredged.

Mr. Field.

4243 Do you propose to start a tannery?—Yes. All the by-products will be utilized.

4244 This will give employment to the town?—Yes. Everything is to be utilized in Ireland.

Chairman—continued.

of fish, they pass us by, simply because there is no means of transit. I would once again ask this honourable Committee to see for themselves this magnificent harbour. I speak not now of its grandeur and of the scenery, but of its possibility as a harbour of refuge. There is nothing like it along the eastern coast. Killybeg is a tidal harbour and Cullinstown is an impossible place by reason of the tide rushing out by Howlswelline Lighthouse. And now I may finish by saying that we have some claim of recognition as we have given 150 men to His Majesty's Fleet, and of these many have fallen at Jutland Battle, in the North Sea, in the Dardanelles—everywhere where the British Fleet guards the sea. Commemorate are bound to come from your recommendations, gentlemen. The Imperial Parliament will be guided by your report, and I would earnestly and respectfully urge that the days of tinkering with bits of piers here and there, and seeing them crumble by the sea in a few years, is past, and that your duty is to recommend expenditure of money on a pier which can be made a safe harbour for ships.

4245 I am afraid that hardly comes within our Terms of Reference?—We thought it no harm to bring the matter before this Committee, and that you might possibly get an opportunity of making a recommendation in regard to it.

4246 In a general way we would believe in improving the harbour?—It is an exceptionally deep-water harbour.

Mr. Lindsay.

4247 What is your nearest railway station?—Drogheda.

(This closed the evidence.)

The Mayor of Drogheda [I beg to move a vote of thanks to the Committee for the very painstaking way in which they have listened to us in our endeavour to do something for this grand old town. We feel we have been neglected for a considerable time past. We have a great many grievances. We want our improved and railway communication between Kells and Mullingar, and railway connection with the quays. I feel sure we are all deeply grateful to the Committee for the patient hearing they have given us.

Chairman.] On behalf of the Sub-Committee I beg to thank you for the evidence you have been good enough to give us, and you, Mr. Mayor, for the kind words you have just uttered. We are very glad to come here. We wanted to find out the facilities for transport offered by this port, and I think we have found out all about them. We shall report to our Main Committee the information we received here to-day.

(The Sitting then concluded.)

TWENTY-THIRD PUBLIC SITTING. FRIDAY, 27TH SEPTEMBER, 1918.

At the OAK ROOM, MANSTON HOUSE, DUBLIN, at 11.30 a.m.

MEMBERS PRESENT:

Mr. Wilson-Fox, M.P., Chairman, Select
Committee
Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.
Mr. Matthew Keating, M.P.
Mr. Walter Hudson, M.P.

Mr. PHILIP MACNUSKY, Secretary.

SIR ARTHUR SHIRLEY BENN, M.P., IS THE CHAIR.

CAPTAIN J. H. WEBB, R.N.R., Harbour Master, Dublin Port, called in; and Examined.

Chairman.

4244. You are Harbour Master here?—Yes, sir.

4245. I understand you are giving us some further information about the port of Dublin?—I have been here for six years, but before that I had the advantage of seeing remarkable developments take place in Calcutta and Buenos Aires. In 1867 Calcutta was only a swamp—where that swamp was there is a very fine dock. It only took a few years to bring that great change about. It was done with British capital and labour. The same thing happened in Buenos Aires. When we went there first there was no harbour, and now it can accommodate 300 of the largest ships in the world. When I came to Dublin, I saw that it was the finest port in the world. It only wants development. The thing that struck me was that it was a one-sided port—that is the north side, into which the railways run. The south side has a great advantage over the north side, as you have deep water, but there is no railway connection. The south quays are almost derelict at present for want of railway accommodation.

4250. Are the quays privately owned?—They belong to us—the Dublin Port and Docks Board. The only trade that we are doing there at present is one cross-Channel company—the British and Irish—which has grown into an immense large company and would require thousands of feet of quays if we had railway facilities. The only revenue we derive outside that is from native timber. That native timber has to be carried right away from the Great Southern Railway Company Station clean round the city down to the South Quay. With this carting and everything else the North Quay is hopelessly blocked. The quay is too small for the traffic. We have to keep up a force of police to keep these quays clear. We cannot, as a matter of fact, keep them clear. They are blocked hour after hour. The only way to do away with the carting is by railway accommodation. The first essential, I should say, for the port of Dublin is that we must have deep-water berths. We have only one deep-water berth in the port—that is at the end of the North Wall extension. We have got 22 feet of water on the bar, and the high tide gives us 32 feet. We all know that the new standardized ship is a ship that, if it carries anything over 5,000 tons, draws 26½ feet of water. We want to accommodate a large ship. We have got vessels coming here, here time to time, drawing 24 feet of water, and they lie at the bottom of the river at low water. The result is that when there is a charter for Dublin from the Baltic it is always refused because we have not a deep-water berth. There is no shipowner who likes to have his vessel lying on the bottom of the river. If we had money we could get along. There is no difficulty in getting deep water. You could dredge until you got your depth. The digging is so small that it does not come into consideration at all.

4251. Do I understand you to say that you have no berth at all where you could discharge ships drawing 27 feet of water?—Not a single berth, and we have only one that is 25 or 26 feet at present. The only safety is for a ship drawing 24 feet, and we have only that one berth.

Q. 178

Chairman—continued.

4252. What is the length of the berth?—750 feet. The vessels we have coming in now are over 500 feet long.

4253. What is the remedy you proposed?—The deepening of the river. There is no difficulty in dredging the river to any depth you like, and to do that we will have to deepen our quays.

4254. Would the quays stand?—No. It would be an engineering problem then whether you would see piles. When our electric cranes were put on the North Wall extension the cranes were built there for extending our quays 15 feet out.

4255. You started off by speaking of the difference between the north and south sides?—Yes. As you know yourself, the city is divided by the river. It has been many times talked about of having a tunnel connecting the two sides. If we had a tunnel or a transporter bridge the railway tracks could be carried across the river and also the vehicular traffic, and what is more important would be the crossing of the workmen. At present, on a very bad day our ferries cannot run at all. They are only the ordinary row-boats, and workmen are held up on the South Quay when the boats cannot cross. There are a lot of the men living on the south side. There is no way of getting across. They have to walk round by the East Bridge. Again, in favour of the south side, is the fact that there is a tremendous lot of ground that could be used as storage and for warehouse. There is a lot of waste ground that could be utilised.

4256. What you want really is either a tunnel or a transporter bridge?—Yes.

4257. You have not told us anything about the railway connection?—The railway connection on the south side would not present any difficulty. It could be easily brought from the Dublin South-Eastern Railway, and all the railways could be worked from that over across the new connection up to the Custom House Junction. I believe that there have been many plans made for joining up the South Quay from the Dublin South-Eastern Railway.

4258. What about dredging?—When I came here, in 1911, the Alexandra Dock had not then been dredged for over 27 years, and the only difference in it was about 11 inches that had lifted up in that time.

4259. Silted up from what depth?—In the centre of the basin you could get any depth. We have three depths at the quays. We have depths running from 30 feet to 23 feet and 25½ feet.

4260. Is 25½ feet in the deep-water berth that is 750 feet long?—Yes. The dredging was a very small figure in the port of Dublin. Once you got down to a good depth it will practically remain.

4261. You are not dredging regularly?—Yes.

4262. How many dredgers have you got?—One very up-to-date dredger, a suction dredger and two bucket dredgers on the river—one single and one double bucket. There is only one bucket dredger really that would be of much use for dredging down to a certain depth. The other would do to dredge at low water. An up-to-date dredger would maintain the port of Dublin quite easily, except the bar, but the bar is

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holding

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Captain WEBB

[Continued.]

Chairman—continued

holding the oars for many years and has 21 to 22 feet of water and in parts 24 feet.

4265. At low water?—Yes.

4266. What is the bottom—is it sand?—Yes.

4267. No rock?—No; all sand.

Mr. Lindsay.

4268. You spoke of the south wall for the cross-Channel trade?—Yes.

4269. You are talking of the ordinary daily service?—Yes, daily and weekly.

4270. What about the passenger service?—There is very little passenger service.

4271. The passenger boats would not use the south wall?—They could use it just as well, because they would be quite close to the station at Yarn Street.

4272. The carriages could not come alongside?—They don't now, except the London and North-Western.

4273. You could not do that in the south wall?—You could do it later on, but at much expense.

4274. It would be a roundabout way?—Yes.

4275. If you made your connection with the Dublin South-Eastern Railway it would be very roundabout for passengers?—Yes, but my idea is for merchandise. Passengers don't pay.

4276. As regards the Head Lane Co., had you complaints?—Yes, at first, but then the manager, who is energetic and up to date, whatever arrangement he made with the insurance people allows his boats to lie on the bottom. It is a very sore point with him. Dublin has a great advantage over other ports which have not a muddy bottom. It does not hurt a ship. We have a good many cases of ships claiming liability for touching on the bottom.

4277. What would the "Rathlin Head" draw?—25 ft 6 ins.

Mr. Wilson-Fox

4278. Who at present runs the railway facilities at the north side. Is it the harbour people?—The railway people entirely.

4279. They own the railways and work them?—Yes.

4280. Would that be the idea on the south side—that it would be a railway problem?—A railway problem and a port problem.

Mr. JOSEPH MALLAGH, M.E.S.E.C., Engineer to Dublin Port and Docks Board, called in, and Examined.

Chairman.

4281. You are Engineer to the Dublin Port and Docks Board, Mr. Mallagh?—Yes, sir.

4282. Have you got any information to give us?—My interest in the matter is to say whether the suggestions put forward by Captain Webb, relative to Dublin Port, are practicable from an engineer's point of view. The first matter to which he referred was want of depth in the berths for modern steamers. The walls of Dublin Quay were constructed by Dr. Stoney, and, at the time they were constructed they were in advance of anything then in existence. Unfortunately, the construction does not lend itself readily to improvement, but, at the same time, there is no insuperable difficulty in providing moderate additional depth. As regards the depth to be provided, I would go rather further than Captain Webb, and I think the Port and Docks Board should, in constructing new works, go for a minimum depth of 30 to 31 feet with a prospect of, later on, providing for a depth of 35 feet. One can see that all traffic at the present time is governed by the depth of the Panama Canal—practically 40 feet at low water. The Board have not as yet considered any general scheme for the development of the Port of Dublin, but they have requested me to bring in a report and scheme early in the new year. They gave me, roughly speaking, nine months to consider the matter. While I am not able to give you a cut-and-dry scheme, yet, I suggest, there are certain things that might be done. Owing to the peculiar construction of the North Wall, I think we should have to limit our depth there to 30 feet.

4283. If you had more than 30 feet you would have to reconstruct?—Not reconstruct there, as the cost would be prohibitive, but we would have to provide other accommodation for deeper ships.

Mr. Wilson-Fox—continued.

4279. What I meant was, is it your idea that the railways should put down the lines and work them?—Yes.

4280. And that is the present condition?—It is. They reap the advantage by that.

4281. Do you find that a satisfactory arrangement on the north side—the railway companies running the line?—Yes.

4282. Have any reports been obtained as regards the cost of what you propose?—I don't know that the Board ever went into the cost. I believe many years ago they did, but the cost would be entirely different at the present day, and also the changes that have taken place since then might alter the plan.

4283. At the present time the Port Board is not in a position to put in a scheme supported by engineering authority?—They would be in a position to do that.

4284. They are not ready now?—No; but they could put in a scheme if required.

Mr. Hudson

4285. Has the Dublin South-Eastern Railway been approached with regard to your project of railways on the south quays?—I don't think they have been approached by the Board.

4286. So you have no idea as to what the scheme would be likely to be so far as the railway point of view is concerned?—The only idea I would have is that it would increase the railway business immensely.

4287. Undoubtedly if a practical scheme was adopted and that there was sufficient trade. But what I wanted to know was this, have the railway people given their point of view with regard to the practicability of the railway connection and expressed their willingness or otherwise in regard to meeting you in reference to the project?—I don't know that they were ever approached or whether they would be willing or not. I expect that they would be quite willing to come into it to get the traffic from the other railways.

4288. It would be very largely a practical question for the company?—Yes.

Mr. Wilson-Fox.

4289. That is not the place where you would get the deeper ships?—No. I would suggest the opposite side of the basin, at the Alexandra Wharf, where we now have 22 or 23 feet. The Board have already sanctioned the construction of an extension of this wharf. Plans are in existence, and we will probably construct that to give a depth of 32 feet at low water. That would give a berthage for one more ship a second alternative berth. In the suggested scheme of improvements that I am thinking about, viz., the extension at the other side of the reclaimed land facing Cloostart, that is where we could get a greater depth. It would get away from a difficulty which has been pointed out, viz., the congestion of the traffic on the North Wall. Anyone going up and down the north wall can see the very serious delay to cartage going up and down, and it is a great drawback that a lorry cannot do as much work as it would if it could travel at a reasonable rate backwards and forwards. In addition, you have the opening of the bridges, which interferes with traffic very considerably, so that for greater trade I think we ought to look away from the North Wall, and I have prepared a small scheme showing what might be done. I think the question of train ferries from Dublin across the Irish Channel was raised at a former sitting of your Committee. I don't know how far that has gone, but a suggestion was made of a marine station at the end of the reclaimed land.

4290. I don't think that was made here?—I think it was made by Sir John Griffin.

4291. My idea was that it was from the Alexandra Dock?—If it were nearer you could get better sheltered accommodation. Of course that is a very serious matter. We would require a considerable number of deep water berths to take the traffic.

4292. What

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Mr. MALLAGH.

[Continued.]

Chairman.

4293. What water have you got on the bar?—Nominally 20 feet at low water. It is rather better than that—it is 21 or 22 feet, but the ruling depth of the bar is 20 feet at low water.

4294. And at high water—32 feet.

4297. If improvements were being made by your Board in the harbour you would want a greater depth over the bar at all times—I don't think that we could look forward, reasonably, to being able to take in our deepest vessel at any stage of the tide. It is bound to be a tidal harbour. Even Liverpool is tidal for its largest ships. I think that is a desideratum that we cannot reasonably count upon, viz.: to being the largest of our ships in at low tide.

4298. If you could bring in the larger portion of your shipping at any stage of the tide?—We have gone as far as we require. It is quite easy for a ship master to use his intelligence to hit the tide.

4299. Then you have 32 feet?—Yes, and that is the depth I am proposing that any works to be carried out should be. As regards the question of cranes, that is, perhaps, more a matter for the Board.

4300. We had particulars as to the cranes?—Yes.

Mr. Wilson-Pax.

4301. Could the North Wall position be improved by a re-arrangement of the railway facilities on that side?—I certainly think so.

4302. But that would be a matter for the railway?—It would concern both the port and the railway. It would have to be a joint scheme. The present facilities for some of the railways are not very great—running powers over each other's lines. Dealing with the suggestions which have been made for connecting the North and South walls—a tunnel or a transporter bridge—that is a matter that has to be looked at from different points of view. You cannot very well make a railway connection by tunnel or transporter bridge. You may transport three or four wagons.

4303. Not for trains?—No, not for trains. You are limited to your loop line for that. So far as I have been able to look into the matter, I don't think there are any insuperable difficulties in connecting the Dublin South-Eastern line with a system of railway on the South quays. The Board have spent £1,000,000 on reconstructing and deepening the South quay, and they are not deriving sufficient revenue for that expenditure. They would get an increased revenue if there was a railway there.

Mr. Lindsay.

4304. You would say that the passenger arrangements at the North Wall are reasonable now—the transfer between the trains and the boats?—Considering the difficulties of the situation, I think so.

4305. The luggage has to be transferred by hand?—Yes. It is very difficult to improve on it at a reasonable expenditure. That is more particularly a matter for the railway company still, whether their traffic would justify the expenditure, but the Board has given them all the facilities they have asked for. There is one important matter that crops up here. Alderman Hogan, in giving evidence before you, referred to

Mr. E. W. L. Hunt, Chief Inspector of Fisheries, Department of Agriculture and Technical Instruction for Ireland, called in; and Examined.

Chairman.

4306. You are Chief Inspector of Fisheries, Mr. Hunt?—Yes, sir.

4307. And you have kindly prepared a statement dealing with the conditions existing at present?—It is a general statement. We can come to details afterwards if you like. The following is the statement:—

The Department is responsible for the Administration of the Fisheries of the whole country, and have legislative and judicial functions. They may concern themselves in the development of fisheries and ancillary industries in any part of the country. The Congested Districts Board have no administrative, legislative or judicial functions, but may expend their funds on the development of fisheries in congested districts. Congested districts now include the sea coast from (but not including) Londonderry to Roscarbery (west of Clonsilla), Co. Cork, with the exception of certain small areas of no present importance. In practice the

Mr. Lindsay—continued.

negotiations which had been taking place with the Government with regard to the Spar Wharf and the lengthening of the Graving Dock. I am sorry to say that I had a letter this morning from the Admiralty practically putting their foot down in regard to giving us any help. This is the letter:—

CWB/JEA

Admiralty,
Great George Street,
London, S.W. 1.

Copy

Reply to—

Controller-General of Merchant Shipbuilding,
Great George Street, S.W. 1,
and quote C.G.M.B./1598/XI/29625.

24th Sept., 1918.

Dear Mr. Mallagh,

Proposed Dock Extension and Spar Wharf.

I have your letter of the 19th September enclosing copy of your secretary's letter of the 27th August, from which I see it is quite clear that the Spar Jetty construction entirely depends upon whether the Admiralty will defray a portion of the cost, and that the lengthening of the Graving Dock could only go on if your Board was authorised to use their borrowing powers for this work instead of limiting them to the construction of a new Dock.

The whole position of works of construction has greatly altered since I saw you in London, and the War Cabinet have now issued an order prohibiting any further works of construction except such as can be completed quickly and are proved to be necessary for winning the war.

Because of this restriction it has now become almost impossible to get the Treasury to agree to giving grants in aid of works of construction at all, so that I am afraid it would be of no use putting forward an application for financial assistance towards the Spar Wharf at the present moment.

Of course, Ireland is different from the rest of Great Britain as far as labour is concerned, and I am taking the earliest opportunity of asking the Committee of the War Cabinet whether their restrictions on new constructional work might not be somewhat relaxed where labour is plentiful. But there is still the difficulty with regard to cement, which is now harder to obtain than almost any other class of material.

Yours faithfully,

(Sgd.) O. W. BAILEY,
Director of Extensions.

J. Mallagh, Esq.,

Port & Docks Board, Dublin.

[Witness:] If the Government had agreed to our offer at the beginning we would have the jetty completed now.

[Chairman:] You would not expect the Government to agree to this work if there was war work on—when they want the cement for other things?—At that time cement was easily obtainable, and our work was for the purpose of increasing the output of ships.

Chairman—continued.

Department do not concern themselves with the construction or improvement of fishing harbours in congested districts, but may on occasion contribute to a harbour scheme of common importance. They have carried out some small harbour works at places which have since been included in the Congested Districts area. They are concerned with the development of shell-fish industries, irrespective of district, and have made some expenditure in connection with landing facilities for oysters and mussels in a congested district. Difficulties of railway transport arising in congested districts are usually referred to the Department as having certain statutory relations with railway companies so also as to transport cross-Channel and in Great Britain. The Department presumably have power to subsidise private enterprises concerned in the carrying of sea fish to market, but have not had occasion to do so.

Authorities

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Mr. HOIT.

[Continued.]

Cases—continued.

AUTHORITIES RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF HARBOURS

1. The Crown, as represented by
 - (a) The Commissioners of Public Works;
 - (b) The Department: Construction of fishery piers and harbours and provision of landing facilities in non-congested districts and assistance in maintenance in some cases;
 - (c) The Congested Districts Board: Construction in congested districts and assistance in maintenance.
2. County Council.
3. Independent Harbour Boards.
4. Railway or steamship companies, and industrial companies.
5. Private owners, real or alleged.

The Board of Works are chiefly concerned with large harbours, and they maintain certain Royal harbours—e.g., Donaghadee, Ardglass, Howth, Kingstown and Dunmore East—but they appear to have power to transfer works to County Councils irrespective of their size (Grand Jury Act 16 and 17 Vict. c. 136, s. 7).

The Department on the other hand, are precluded from constructing, for transfer to County Councils, marine works, other than works of reconstruction, costing more than £2,350. In the present circumstances of harbour administration generally this restriction is frankly notorious, as it tends to perpetuate the system of wasting small sums on ineffective works, and it is obviously an incentive to insufficiency of estimate. I do not propose to go fully into the question of the powers of various bodies as to harbour work, as I understand the Sub-Committee will be hearing evidence from the Local Government Board.

At Dundalk where there is a Harbour Board, the latter owns only a few yards of the quays, a circumstance which severely compromised a recent development of fishing at that port.

PROVISIONS FOR CARRYING OUT WORKS OF CONSTRUCTION OR MAINTENANCE.

The Board of Works have a permanent engineering staff, dredging plant and workshops. The Department have a temporary engineering staff and dredging plant. The Congested Districts Board have not, so far as I am aware, at present any special staff for dealing with marine works. County Councils appear to be dependent on their County Surveyors for marine engineering purposes. So far as I am aware, none of them possess any marine dredging plant. Harbour Boards at Dublin, Waterford, Cork, Limerick, Sligo, Londonderry, Belfast and Dundalk have harbour engineers. The Dublin, Wickford, Cork and Dundalk Harbour Boards have tugs. I am not sure about the others. There is a dredging plant at Dublin, Waterford, Cork, Londonderry, Belfast, Dundalk and, I think, Dundrum. The Drogheda Board has a dredger, but it appears to be derelict. The Waterford and Wicklow Boards had dredgers, but have sold them, presumably because they could not afford to work them. I have not referred above to such engineering staff and dredging facilities as exist on the west coast and there has been no time to get in detailed information as to the equipment of Harbour Boards generally.

DIFFICULTIES OF EXISTING SYSTEM OF HARBOUR MAINTENANCE AND CONSTRUCTION.

The maintenance and improvement of Royal Harbours are satisfactorily dealt with by the Board of Works, who appear, however, to find occasional difficulty in procuring plant, as they do not seem to maintain repair plant adequate for all emergencies, but it does not seem to be a cash difficulty. The boards in charge of large harbours, such as Londonderry, Belfast, Dublin, Waterford, Cork and Limerick, also appear to have adequate resources, in staff, plant and revenue, for their requirements.

When we come to County Councils and minor Harbour Boards we find that the former are dependent for engineering advice on their county surveyors, who do not necessarily possess any special knowledge of marine work, while the latter Harbour Boards have no engineering assistance at all, and I believe neither the Councils nor the Boards possess any marine engineering plant at all. Not unusually such harbours are liable to get into bad condition, because it is the busi-

Chairman—continued.

ness of no public body specially competent as to afford the necessary supervision. It may be added that the administration of the revenues of these small harbours is not necessarily exemplary.

Turning to the question of construction, including improvement or enlargement of harbours, the division of these functions between three separate bodies within the limits of a country the size of Ireland is perhaps not an ideal arrangement. Harbour construction, improvement and maintenance predicate funds disposable for the purpose. Leaving aside the large commercial harbours, it may be said that no such funds exist, at least in non-congested areas, for it is most unlikely that, unless the Department's commitments be largely increased, they will ever again be able to spend large sums on such purposes. Money, of course, may be again available by way of Parliamentary grants or from the Development Commissioners, or some such institution, but the existing division of control or claim does not seem to make for efficiency of distribution. The tendency on the part of the purse-holder to attempt to satisfy all demands by inadequate doses to each must be rather strong.

The solution which suggests itself to me, in my personal capacity, is to bring all minor harbours under one central authority, adequately staffed for purposes of supervision, and deriving such funds as may be requisite, in addition to establishment charges, for maintenance and for improvement and construction from Parliamentary funds made available on annual estimate. Such an authority might, however, be ineffective for economical development of harbour facilities unless it were in a position to so far control inland transport that it should not be worked in opposition to coastwise traffic. The latter is not of the least importance for fish carrying purposes, but very few harbours are likely to pay expenses out of fish dues alone. Such a system might tend to the improvement of harbour masters. At present a good man in a poor place has no prospect of promotion, and an incompetent one is perhaps in no great danger of dismissal.

Dealing with things as they are, the Department in 1910 made enquiry with a view to ascertain how far it might be possible to utilise, on mutually sensible terms, the dredging plant attached to some harbours for work at harbours which had none as part of a general co-operative scheme in which the Department's section dredging plant would take its share. No financially practicable result emerged from the negotiations. I may not be alone in considering there would be great difficulty in adjusting the interests of bodies which had provided themselves with dredging plant with those of bodies which had none, even in the matter of distribution of work at locally appropriate seasons of the year or of ensuring the maintenance of the plant in efficient working condition by its various owners, but in any case general lack of harbour revenue seemed to render the project unpracticable.

Two of the harbour authorities which the Department consulted on this occasion have since sold their dredgers, and others have since had to invoke the assistance of the Department. It goes without saying that any central authority for minor harbours setting about to provide itself with plant would take account of any plant belonging to larger harbours and likely to be available for hire at certain regular seasons.

I may here mention a minor difficulty in the present system of maintenance. At certain remote fishing basins, in response to local appeals, the Department have provided warches for hauling up fishing boats. The County Councils are precluded from taking over these things as they do not form part of works to which a Council has contributed, and the business of seeing that they are kept in good condition is a charge on the Department's time and funds out of all proportion to their original cost.

POLICY OF FISHING HARBOUR DEVELOPMENT.

Before giving an account of fishing harbours in the Department's sphere of developmental interest I should like to state briefly the lines on which it seems to me that harbour development should be pursued. The choice seems to lie between attempting to concentrate fishing at places where there are natural facilities for harbour construction and endeavouring to improve harbour accommodation at places where there exist communities of fishermen endeavouring to make a living

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Mr. HOLLS.

[Continued.]

Chairman—continued.

in face of the severe competition involved by modern methods of fishing from more favoured situations. So far as we are concerned the first proposition seems to have no merits. It depends on the first place on the popular fallacy that fish are evenly distributed on all parts of the coast, regardless of depth of water or nature of bottom, and it overlooks the impossibility of migrating fishermen except to America. It may be taken that where there is a community of fishermen there are good fishing grounds within reasonable distance, and where nowadays there are natural harbours and no fishermen to speak of there are no decent fishing grounds within reach. Arklow is, of course, an exception, being chiefly a home of hereditary fishermen and of the large boats in which they follow the fishing on distant grounds.

What we have to endeavour, with due regard to existing or probable facilities for getting fish to market when caught, is to put existing communities of fishermen in a position to pursue their calling with the least reasonably possible handicap in the way of landing difficulties, and to provide in advance for such improvement in size and type of fishing craft as the circumstances of each place may seem to warrant. It is of no manner of use trying to graft a steam-trawling or steam-lining industry on existing parts of the coast, because there is no sufficient market in the country for their products. The small Dublin fleet of steam-trawlers appears to be at least equal, in normal times, to local requirements, and the fact that there is no steam-trawling out of Belfast speaks for itself as to the prospects of successful enterprise in that direction. What we can reasonably aim at in the way of improving fishing craft is the gradual replacement of obsolete sailing vessels by motor boats larger or smaller according to the individual conditions of each place, and even in the achievement of this modest ambition experience has taught us to go slow.

I am not referring now to schemes which aim at establishing Irish steam-trawling ports merely or principally as the landing-places for fish to be sent through to British markets, but may remark that such schemes neglect the fundamental fact that any fishing grounds which would support such industry are not very materially nearer to Ireland than to Great Britain. I had in a note prepared in case this question should arise

FUNDS FOR PROVISION OF FISHING BOATS, GEAR, &c.

Our predecessors, H. M. Inspectors of Irish Fisheries, administered funds named the Sea and Coast Fisheries Fund, the remnant of a much larger sum collected for the relief of distress in 1832, and the Irish Reproductive Loan Fund similarly collected in the famine years 1846 to 1848. In 1891, when these funds totalled £25,000, £15,000 was transferred to the Congested Districts Board, and in 1899 the remaining £20,000 passed, as an appanage of the Fisheries Office, to the Department. This fund, professedly administered, appears to be sufficient for the gradual augmentation of motor-power in fishing boats, especially since, in the present prosperity of fisheries and fish trade, private enterprise is doing more than usual in the same direction. Loans for motor-boats or for the installation of motors are made for periods rarely exceeding seven years, which as long as an engine can be expected to survive the attention of a fisherman drives. The present rate of interest is 3 per cent.

FUNDS FOR CONSTRUCTION, IMPROVEMENT AND MAINTENANCE OF FISHING HARBOURS.

There remains out of a sum of £50,000 earmarked for the Department's fishery purposes by the Development Commissioners in 1901 an unutilised balance of between £4,000 and £5,000 hypothecated for the dredging of a channel connecting Helvick and Dungarvan, for which purpose it is not likely to suffice. There is also an unexpended balance of £400 from a sum of £2,000 allotted in 1911 for the dredging of small harbours.

The Department have a statutory income of £10,000 for sea fisheries purposes, out of which they have to provide for protection on the whole coast of Ireland, for salaries and expenses of engineering staff and of other necessary officials for whom no provision is made

Chairman—continued.

in the Parliamentary Vote, and for scientific investigations, shellfish culture, fishing experiments, etc., etc.

In normal times the maintenance of the Fisheries Protection Cruiser was a very heavy charge on the £10,000, and the maintenance of the dredging plant cost far more than it brought in. At present the cruiser is in the service of the Admiralty, who for strategic reasons keep steam-trawlers out of their usual peacetime grounds, and owing to the great increase of Arklow Harbour revenue from dues on motor-ten ships, we are getting back some of the money we lost on dredging that harbour in pre-war times. But for these reductions in expenditure it would have been impossible for us to have completed the various marine works which we had in hand when war commenced.

I had in a statement of the contributions which the Department have so far made to marine works, amounting to a total of about £242,452. It will be seen that £125,849 of this was contributed by the Agricultural Board out of the Department's Agricultural Endowment, in respect of purposes of transport of produce. (These sums do not take account of cost of purchase and upkeep of dredgers, £21,453, and salutes, etc., of engineering staff, £17,529.)

In view of the increasing cost of wages and every commodity, it is most unlikely that the Sea Fisheries Fund will again be in a position to make any substantial contribution to the cost of marine works, and I believe the same may be said of the Agricultural Endowment. I may add that to allocate, out of industrial funds, sums for carrying out marine works is a most dangerous proceeding, as it appears to be impossible to make anything like a close estimate of the cost of a marine work.

4303. I gather from your statement that there are five different bodies responsible for the construction and maintenance of harbours?—Yes. There is, first, the Crown as represented by the Commissioners of Public Works, the Department and the Congested District Boards; (2) the County Councils; (3) Independent Harbour Boards; (4) Railway or Steamship Companies and Industrial Companies; and (5) private owners, some of whose rights are rather nebulous.

4304. Are there any points where more than one authority is responsible?—I don't think in fact there are, but I know a case of a harbour where the County Council own the bulk of the pier, the Board of Works own the new works, and also maintain the Harbour, which is under the control of a Harbour Master nominated by the County Council and appointed by the Board of Works. That is one instance of divided control. The County Council really manage that Harbour and the Board of Works really keep it in order. As a general rule the Harbour belongs entirely to one body.

4310. What are the relations of the Board of Works to the local governing bodies?—I don't know. We only come in contact with these bodies in connection with harbour works.

4311. Are not the County Councils subject to the Local Government Board?—Yes. They have to abide by certain rules laid down, and I suppose the Local Government Board have some power to approve or withhold approval, but I am afraid I don't know very much about that.

4312. You say "The Board of Works are chiefly concerned with large harbours," and afterwards you state in the following paragraph, "The Department, on the other hand, are precluded from constructing for transfer to County Councils, etc."—Yes.

4313. Does "The Department" there mean the Board of Works?—No. It means the Department of Agriculture. I always mean the Department of Agriculture when I say "The Department."

4314. Can you tell us why the Department is precluded from transferring to the County Councils marine works other than works of reconstruction costing more than £2,500—why has it been limited to that sum?—It has been so limited by Act of Parliament. There was a good deal of discussion between various Government Departments before that was fixed. Previous to that I think we had not even so free a hand as at present. That was rather an impression on our previous position. There were some restrictions on the amount which

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Mr. Holt.

[Continued.]

Chairman—continued.

which the County Council could contribute to works I think they could only contribute a very small sum indeed.

4315. You say here, "The Department, on the other hand, are precluded from contracting, for transfer to County Councils, marine works, other than works of construction costing more than £2,250." Who retains the control?—Well, so far as I know, if we had money we could construct works costing a great deal more and retain control ourselves. That is what we propose to do with Killineigh.

Mr. Wilson-Fox.

4316. That would be a new work?—No, it is a very large work. It is a work that belongs at present to a private owner, from whom we propose to take whatever rights he possesses.

Chairman.

4317. If you find works costing more than £2,250, what do you do then if you think they are works that ought to be done?—If we start on an estimate that comes within that scope, £2,250, and if we fail to finish it on that estimate, we finish it.

4318. If you saw a work that you thought ought to be done, and which would cost £5,000, what do you do then?—I am afraid under present circumstances we should have to leave it alone. Of course it is often possible to say, "This is a work of reconstruction." There might be some little, tiny harbour to start with. If it is an entirely new harbour we are bound by that rule.

4319. So if you find a place where there is very good fishing going on, and you thought it would be very useful and necessary to expend £5,000 on it, you would leave it alone?—Yes, but where there is good fishing there is nearly always some scrap of a harbour in existence.

Mr. Wilson-Fox.

4320. There is the loop-hole?—That is the loop-hole.

Chairman.

4321. In the next paragraph you say, "At Dundalk, where there is a Harbour Board, the latter owns only a few yards of the quays, a circumstance which seriously complicated a recent development at that port." Is it your opinion that the Harbour Commissioners ought to have full control over the wharves?—I don't see what function they subserve unless they have full control.

4322. You say farther down, "Harbour Boards at Dublin, Waterford, Cork, Limerick, Sligo, Londonderry, Belfast and Dundalk have harbour engineers?"—Yes.

4323. Is there anybody over them—any big engineering supervision?—Oh, no. Each Board appoints its own engineers, and, of course, they may on occasion call in a big man, who advises them, but there is no one in a general way over these harbour engineers.

4324. We heard in one or two places we visited that although there were good dredgers in existence, they could not keep them on account of the expense, and sold them. Is there any Department that would be empowered to find the necessary money to dredge in order to keep a port open?—I don't know of any department that can interfere in the business of a Harbour Board. The Wicklow Harbour Commissioners asked us to dredge the harbour for them, and they promised to pay us. We dredged the harbour all right, but they have not paid us. Our plant and staff is not big enough to be relied on to sweep out every harbour in Ireland whenever it happens to want it. I asked Mr. Haassard to prepare a complete list of the dredging plant in this country, but I think it is not quite complete. He will give it to you when it is complete.

4325. Is there any dredging plant not being used at present—any modern dredging plant?—I don't know whether the Waterford Harbour Board plant is being used or not. There is a certain amount of dredging plant which, from time to time during the year, is not used, and which might be useful somewhere else during that season. I particularly mentioned the provision of money on the annual estimates because of the impossibility of even the most competent engineering staff say-

Chairman—continued.

ing what a harbour is going to cost. For instance, you may have an estimate of £10,000 for a certain work. All sorts of things may happen. You can never tell what the sea is going to be up to while you are putting up the harbour. I don't myself like going into these schemes without a larger reserve than usually exists.

4326. I presume if there was a central authority they would have a staff of engineers who would go round and make estimates for the maintenance and improvement of the ports?—Yes.

4327. This is a most valuable and interesting document which you have handed us. It is one which the Members of the Committee would want to study very closely. We may have afterwards to ask you to add to it or give us some information about it. The Committee will study this statement of yours very closely.

Mr. Wilson-Fox.

4328. I see that you are temporarily in clover by the Admiralty having taken over the cranes that you would otherwise have to maintain?—Yes. When the coasts back to us she will probably absorb the whole of the £10,000—the statutory income of the Department—for sea fisheries purposes.

4329. I should gather that your view is that the whole position wants reviewing?—Yes. I hand in this list of the work we have carried out with our own funds and such assistance as we could get.

4330. Have you had to extend or contract your temporary staff as the work warrants?—A certain number of them are really permanent. They are only temporary in a technical sense. For some reason or other the Treasury objects to the principle of providing personable engineering officials. There may be some deep-seated reason behind it, but so far as I know anything about these matters, it is generally a question of saving money.

Mr. Hudson.

4331. In your suggestion with regard to bringing local harbours under one central authority do you think you would meet with any serious opposition on the part of the existing authorities?—I should not think so at all. You will find that nearly all of the harbours have very heavy debts on them. In their Director the income and expenditure and the debt on each Harbour Board is set forth.

4332. In the carrying out of your scheme you would levy upon each Board a reasonable proportion of the amount for the upkeep?—Yes. I think the Central Body should have the dues and, having a central authority not swayed by local influences, it is quite possible that the dues would be better administered, in some harbours at any rate, than they are at present.

4333. It would be a general advantage to the trade of the country to have the harbours so managed and controlled?—So far as I know anything about the trade of the country I think it would. It would be certainly an advantage to the fishermen.

Mr. Keating.

4334. I would like very much if you would accept the Chairman's suggestion to give us time to consider this statement and add to it or reply to any questions?—Yes. If I get an idea what the Committee wants to know, I shall be glad to give you the information. My difficulty was that I did not quite know what the Committee was going to inquire into. I don't know whether the Committee would care to hear about Arklow.

Chairman.

4335. We saw Arklow. There never has been a Blue Book which surveyed the whole of the harbours of Ireland?—The Board of Works has periodically published accounts of the harbours.

4336. There is no one Book that covers every harbour?—No, there is no published report. Mr. Dick made a report about fishing harbours to the Board of Works which I have seen, but apparently it has not been published.

Witness. I have a lot of things here about fishing boats, the landing of fish and different fishing harbours in which we are specially interested. I made notes about them. I can hand in the whole thing.

4337. Thank

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[Continued.]

Chairman.

4337. Thank you—I should like to say that the works that I consider of the first importance in relation to fisheries and works which ought to be taken up, if money could be got for them, are in the order of importance—Kilbough, which we regard as important not only to the fishing development, but which we think would also undoubtedly serve a very large traffic in agricultural produce. It is a very rich neighbourhood. Ardlough is quite near, but it is incapable of development. In Hellick we have advanced very far as it is, but whether we shall be able to find enough money to make a thoroughly good channel from Hellick to Bangor, which is a vital part of the whole scheme, I don't at present know. That is of course a fishery harbour. Portagee is a little place on the east coast of County Down, which is the home of the best set of fishermen we have. Their boats are rather small, and until a comparatively short number of years they had not any particular harbour. The Board of Works improved them harbour greatly, but nobody thought of providing them with a road to it. Besides being the home of these fishermen, it is also a place from which a vast quantity of potatoes is exported. How the carts get to the quay I don't know.

4338. This is a thing, I suppose, you would take hold of, extending the limit of £2,250?—It is not very much. The County Council are very hard up. They are hoping to get the Road Board to provide them with this road, but at the beginning of the war the Road Board went out of action for the time being. They also want a small improvement to the harbour, in which I think we may be able to help them.

4339. These fishery things I don't think we can go into. There are two points I would like to ask you about. What are you doing about Arklow—who is responsible for the improving of it?—The Arklow Harbour Board are entirely responsible, and if they don't keep the harbour in proper order it will tumble down.

4340. Is there no authority that will compel them if they won't do it?—I am not aware. I don't know of any controlling power. The Harbour Boards are absolutely independent. The only control we have over them is that about 11 years ago we entered into an agreement to keep the harbour open by dredging for a period of 10 years, in return for which they hand us over all their dues, less the cost of standing charges and essential repair. Owing to the great increase of revenue from dues on munition ships, we are getting back some of the money we lost on dredging Arklow Harbour before the war. We allow our Engineer to advise the Board on any point, but the responsibility is the Board's. I believe they have got an opinion

Chairman—continued.

from Sir John Griffith as to the best way of safeguarding the South Pier, and sooner or later they intend to take his advice, which consists of putting rubble on it at a cost of £200. It has been several months since they got that advice.

4341. They have got the means?—Yes, they have got simple means. They have Kynoch's steamers running in and out and paying dues.

4342. With regard to Passage East Harbour, the County Council provided about one-third of the cost?—Yes.

4343. And the National Government gave two-thirds?—Yes.

Chairman. We are very much indebted to you for the great deal of work you have done in preparing your statement and the returns.

Mr. Lindsay.

4344. Has there been any instance in your experience of a District Council acting as a Harbour Authority?—I cannot remember one.

4345. The reason I am asking is because a suggestion was made in one place that an urban authority might act as a Harbour Board?—Urban Districts do appoint representatives on Harbour Boards, I believe. I think there is some instance or another in which an urban authority has some control over a Harbour Board. The Urban District Council of Portlough own the little run-of-the-harbour called "Port-an-dabh."

4346. The County Council, I suppose, would be the more regular authority in a case of that kind?—There used to be some difficulty about the County Council acquiring from a private owner. We had a case where the Congested Districts Board had to take a present of a harbour and then make a present of it to a County Council.

4347. It could be done in that roundabout fashion?—Yes. May I say a word about Ballycastle? We attach importance to it. Rathlin is not very much unless you can land at Ballycastle. I notice that one of your witnesses spoke about proposals made by the Department to carry out works for a sum of £4,000 to make the place suitable for general fishing. Our plans did not deal with anything more than small boats.

Chairman.

4348. Are there any other papers that you think would be of assistance? If so, we would be very glad to receive them?—I will give Mr. MacNulty a copy of all the notes I have made.

(The Sitting then concluded.)

Mr. ROBERT WORTHINGTON, representing Galway (BAIRN) Transatlantic Port Scheme, called in, and Re-examined.

Chairman.

4349. I understood, Mr. Worthington, you are anxious to give as some evidence on the question of discharging large cargoes at Galway?—Yes, sir.

4350. We have your statement here. We have had a great deal of evidence in reference to Galway and I think we are fairly seized of all the points?—May I say in connection with the coast line harbours, that the whole of Ireland ought not to be sacrificed for them. If we brought the large cargoes to Galway and landed them there tramp steamers and other vessels could be loaded from Galway and could deliver to coast towns cheaper than they could possibly get the goods if loaded at Liverpool.

4351. We won't go into that point. We will take your statement. You claim that even if all the goods were brought into Galway and there were no direct shipments to any extent to the ports all round Ireland that ought to feed their hinterlands, you would make it up by shipping round coast-ways?—Yes, it would be to their interest, but, even if it was not to their interest, we say that all Ireland ought not to be sacrificed for the coast line.

The following is the statement received from the witness:—

The question of discharging large cargoes at Galway, the costing of steamer at Galway, the cost of distribution of goods in Ireland, Guinness traffic, and liner traffic from Belfast, having been raised by your com-

mittee, with your permission I will reply, and then answer any question your Committee may desire. Large liners carrying corn, maize, &c., will be delivered into hopper granaries erected on the pier. Tramp steamers and other vessels will be loaded from these granaries for delivery at coast towns. Similarly railway wagons for inland distribution will be loaded direct from the liner or hopper granaries. This being done by machinery at reasonable cost will certainly be covered by saving of cost of discharge and dock dues at Liverpool. The dock dues at Galway will be much lower than at Liverpool or other ports. In like manner all other goods will be delivered into suitable stores for transit by sea or land, as is customary at all other ports. It is not suggested that large cargoes in bulk for England would discharge at Galway. They would, as heretofore, go direct to English ports. The population of Ireland being 4,380,951, the quantity of general cargoes will be considerable; it is not an unreasonable assumption, sufficient to keep lines of steamers going to Canada, America and Newfoundland. Direct negotiations with this object are in a forward state with Canada. Mails, as of public necessity, must go via Galway, consequent on the saving of time. In 1889 the Government subsidy given for this service from Galway amounted to £28,000 per annum.

As regards coaling—the present ocean liners plying from New York to Liverpool carry coal for a six-days' journey

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Mr. WORTHINGTON

[Continued.]

Chairman—continued.

journey. That quantity shipped at Halifax, plus one day's supply extra, will steam the outward and return journey of 3½ days each way to and from Galway.

Guinness's Brewery has a siding from the Great Southern and Western Railway into their premises where the wagons are loaded for distribution all over Ireland. Their export trade is delivered by their private railway into steam launches on the Liffey, carried thence to North Wall and shipped for England. This process is costly, engaging about 25 steamers, the upkeep being considerable, as they can only work at full tide, and at flood time not at all for three days at a time, causing costly delays that would cover a great deal if not all of the increased cost of sending direct to Galway, especially if a through rate covering land and sea was arranged. There is also the advantage to be derived from payment for goods in 3½ days as against 7 days via Liverpool. Many of these reasons, though to a lesser extent, will influence the linen trade of the north to adopt this route. With regard to distribution of goods in Ireland, the following would go to credit for that purpose: Saving of sea mileage as between Halifax and Liverpool and Halifax and Galway—369 miles, Liverpool to Dublin 132 miles, cargoes, city and dock dues at Liverpool and Dublin. The dues in Galway would be small. Total saving, 597 miles come paid by Ireland in freight, consequent upon Ireland, for want of a Transatlantic port, having to ship all goods from Canada and America through an English port. These credits, which the Irish consumer has to pay, cripples the industry and trade of the entire country and places us at a disadvantage as compared with the English buyer who gets his goods at first cost. The sum thus saved to Ireland would enable distribution to be such as would secure the entire Canadian, American and Newfoundland trade going through Galway. In addition there would be a saving of 2½ days' sea carriage or nearly 50 per cent in sea rates as compared with Liverpool. These items amount to an enormous sum that Ireland is paying and will continue to pay so long as she has not a Transatlantic port on her 130 miles of seaboard facing America, Canada and Newfoundland, which her geographical position entitled her to have for her own benefit as well as that of the Empire.

Chairman—continued.

In 1856 the Government gave a subsidy to the Galway Packet Company of £38,000 per annum. That subsidy increased by £2,000 would pay 4 per cent on £88,000,000 required to construct Galway Harbour. Since that time trade has continuously increased, and the imperial necessity for a closer connection with Canada and America has been emphasized by the war—the losses sustained in lives and vessels passing Galway ap-channel and round Ireland representing many millions.

The evidence of official, local and general approval all over Ireland of this port, which has been the only port placed before the public in all its details, except Blackhead Bay project, confirms the opinion expressed by the Royal Commission of 1884, that it is the best site for a Transatlantic port in Ireland.

The fact of the proximity of Bushen Lake, which is alongside the proposed harbour, and is capable of being made into an ideal dock of considerable area and depth of water at small cost—all the material for the construction except cement being on the site, augments Galway (Barna) site as superior to any in Ireland and possibly in the United Kingdom.

A direct service between Galway, Newfoundland and Halifax will be established, negotiations for which are in a forward state in Canada, but in abeyance pending the decision of the English Government as to the financial assistance they will give the project.

Galway has special advantages over any other site for a Transatlantic port in Ireland, namely: An unrivalled bay; a lake at the site of the harbour, capable of forming an ideal dock; an ancient city, the capital of the west, near the harbour site, capable of developing large Transatlantic traffic immediately the harbour is constructed; a main line mail service railway through the centre of Ireland; and the certificate of a Royal Commission that Galway is the best site in Ireland for a Transatlantic port, and as a point for distribution to serve the trade of all Ireland.

I am satisfied that the carrying out of this scheme would be the salvation of Ireland and would contribute very largely to the satisfactory solution of the Irish question.

TWENTY-FOURTH PUBLIC SITTING: MONDAY, 4TH NOVEMBER, 1918.

At COMMITTEE ROOM No. 12, HOUSE OF COMMONS, at 4 p.m.

MEMBERS PRESENT:

Mr. Wilson-Fox, M.P., Chairman, Select Committee.
Mr. William Field, M.P.

Mr. W. A. Lindsay, M.P.
Mr. Walter Hudson, M.P.
Mr. P. J. Hannan

Mr. PHILIP MACNEULT, Secretary.

SIR ARTHUR SHIRLEY HENN, M.P., in the Chair.

The Right Hon. Lord MORRIS, K.C.M.G., F.R.S., F.R.C.S., Past Premier of Newfoundland, called in; and Examined.

Chairman.] Lord Morris, this Sub-Committee, appointed by the Select Committee on Inland Transport, were instructed to inquire into facilities offered by the ports and canals of Ireland. The Sub-Committee went over to Ireland and inspected nearly all ports and heard a good deal of evidence about the facilities offered by some of the western ports as a terminal port for a fast mail service between Canada and Europe. We know, Lord Morris, that you have been a great advocate of a line from one of the Irish ports to Canada, and we are very anxious to get information from you about it. There were several points on which we found a difficulty in getting a satisfactory answer. One was, if big steamers were used, what would be done with the dead-weight cargo that they would carry, what

cargo would they get going out from the Irish port, and where would they get their bunker coal? We were told that it was thought possible that very big steamers would not be used, but that small fast steamers would be run to carry mails and passengers. Then the point is, will you get passengers to travel on the smaller steamers if you have got bigger vessels crossing the Atlantic? These were the points that stuck us in the course of our sittings in Ireland as wanting some elucidation, and we thought as you have been for at least ten or fifteen years trying to get a line established you could give us some information?

Fifteen.] The line that I have been identified with, Mr. Chairman, was from Halifax, Nova Scotia, to Galway, in Ireland, working at St. John's, Newfoundland.

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Witness—continued.

land. It was understood or thought feasible that, after arriving at Galway, the passengers and mails and light express goods and freight would then go on tram and cross by ferry from Dublin or Kingstown to Holyhead, and thence for distribution to any part of Great Britain. I was identified with that project because I was asked by the promoters of the scheme to go to Galway. In saying now that I favour that project, and did favour it, I don't want to be understood as passing judgment as to the other routes, because there are alternative routes which I have not very fully examined or inquired into—that is, as regards the terminus in Ireland. It is nearly 75 years since a service ran direct to Newfoundland from Galway. It was one of the first Atlantic services, and I have heard it paid very well, but the guarantee that was offered or presumed to be the basis of the scheme by the Government of the day, I have always understood, were withdrawn, or were not carried out, and the thing fell through, but practically for 70 years—certainly for 60 years—we have had a direct line of steamers running from Liverpool to St. John's, Newfoundland, via Queenstown. But that was a connection that in no way promoted trade with Ireland—no Ireland or from Ireland. The service was carried out by the Allan Line. The boats left Liverpool, and afterwards Glasgow, and touched at Queenstown. There they took the mails and passengers, if there were any, and then went direct to St. John's, Newfoundland, and from that on to Halifax, and from Halifax on to Philadelphia, in the United States, and then back over the same route. It gave a fortnightly service, and it took three boats to perform it. The service was satisfactory extending over all these years, but we never had fast boats. We never had any boat that averaged more than 11 or 12 knots an hour. Now, these boats, I should say, would average about 4,000 tons. There were some of them well-known boats, such as the "Capatiana," the "Polynesian," the "Cassara," "Hibernian," and others. They were owned, as I have said, by the Allan Line. Of course, in later years they put on a better class of boat, like the "Mongolian" and the "Nova Scotia." Those were a little larger than the others I have mentioned, about 5,000 tons. But that service, which was a service, as I say, between Great Britain, Ireland, Newfoundland, Canada and the United States never gave any assistance whatever to the trade of Ireland—to the freight. Of course, passengers could go and come that way, but there was no chance for freight, and as a sample of how Irish trade was killed during these years—I am talking now of up to the beginning of the war—there never was an opportunity of either sending anything to Ireland from Newfoundland or getting anything from Ireland. There was no direct freight connection between Ireland and Newfoundland. I am not aware whether those steamers of the Allan Line were subsidised by the British Government as far as Canada was concerned, or as far as the Imperial Government was concerned, but I do know that the Newfoundland Government subsidised the Line. For a number of years we paid as high as £12,000 a year subsidy, and the British Government also contributed a subsidy for the Newfoundland Connection, but whether they subsidised it for the Canadian Connection I don't know, but I think the Canadian Government subsidised it also. Of course, these boats carried the mails. Without giving any opinion on any particular route, with regard to Ireland, I think that the service that is required would be a service between Halifax, Nova Scotia, and Ireland—Galway, if you like—with St. John's, Newfoundland. Now, it is very easy to compare the time the journey would take if you had a good class of boat, running at, say, 15 or 16 or 17 knots an hour. That is not very high. The fast boats running from New York before the war went up to 22 or 23 knots, but suppose you had a 17-knot boat that would give you a service between Ireland and St. John's of about four nights at sea. Then, when once the passengers were at St. John's, if they chose, they could go to any part of the Continent daily by rail with the exception of seven hours at sea crossing the Cabot Straits, that separates Newfoundland from Canada, or wait for 24 hours while the freight was being discharged. Thousands of passengers are always glad to have a day off on shore. People, of course, in a great hurry might not care for that, but it is a mistake to think that everyone is in a hurry. As to the point

Witness—continued.

whether you would require a very large steamer, I don't think that that service could afford at the start very large steamers. I have told you of the class of boat we were running from Newfoundland before the war. In addition to the three Allan Line boats, we had three or four tramp or freight boats running from Liverpool and London, and steamers from Glasgow to Canada, via St. John's, also. These belonged to the Furness Line. They did not run on schedule. The Allan Line boats did run on schedule. Just previous to the war the Furness Line had very much improved this service, and had added to their fleet a first-class passenger ship, called the "Rigby," and contemplated adding others. The other boats were more freight boats. They were fairly regular, but they were not bound to any particular time. There were three or four of these boats, and they were about 4,000 or 5,000 tons, so that that means, I would say, for 20 years previous to the war we had these boats running between Great Britain and Canada via Newfoundland, and when I say Canada I mean Halifax, because Halifax was the terminal port for the Furness Line. I am quite satisfied if you had these up-to-date boats between Ireland and Canada calling at Newfoundland—say, 7,000 tons—that a very large freight and passenger service would be worked up and would have a very important bearing on Empire trade. It was only a couple of days ago I got notice that I was to appear before this Committee, and I did not quite know the information you would require from me. If I had an idea I could have shown where millions of dollars of trade have gone to foreign countries for the last 25 years by reason of our having no proper British connection.

Mr. Fild.

4332 Millions of dollars?—Yes, I could prepare a statement and send it to the Committee showing the imports into Newfoundland from Great Britain 25 years ago, and what these imports were the year before the war. There has been a considerable decrease as against Great Britain notwithstanding that our imports in that time have tripled. We have tripled our imports, and I could suppose that the British imports have gone down at least 50 per cent, principally on account of inferior transportation and the excessive cost of the same. To give an illustration, a package going on the Allan Line from Liverpool to Philadelphia went cheaper than from Liverpool to St. John's on the same boat, on the same voyage, although St. John's was over a thousand miles nearer, the reason being that there was no competition, and they could charge what they pleased.

Chairman.

4333 The Committee would be very much obliged to you if you gave us that statement—I shall be glad to do so. I would like to say also that if the Committee would prepare any questions in relation to any part of this subject I would be very glad to answer them, and if I have not the latest information on the matter I would procure it.

4334 Some time ago you were in favour of establishing a line to Green Bay?—Well, I favoured that line to Green Bay because at that time an English company proposed to run a line of steamers right into Green Bay, transferring the passengers over the neck of land of about 70 or 80 miles, then putting them into another steamer and landing them on Canadian territory—I think it was Gaspe that was suggested—and then by rail to other parts of the Continent. The Newfoundland Government was asked for a subsidy, and we agreed to give the company a subsidy, and it was understood that subsidies were likely to be obtained from the other countries that would be interested, but the project never went through.

4335 I think the Newfoundland Government were willing to give 125,000 acres of land and 75,000 dollars subsidy annually?—Yes, but if you look at the contract that was made in 1905 you will see that there were very many valuable considerations as far as Newfoundland was concerned. There were to be fast boats that would go out in two and a half days or something like that, and it was alleged, and to some extent it was established, that that route is the best troubled with fog. In fact it was claimed to be "a fog-free zone." I don't go so far as to say that it is absolutely a fog-free zone, but it is probably free from fog than any other

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Atlantic route. As I say, the proposal came from outside, and the Newfoundland Government, having no fast connection, were only too glad to accept it.

4355 I think you thought then that that line would not supersede any other route—that it would be an addition to the existing lines?—Yes.

4357 A supplementary line?—Yes, the fact of the matter is I thought it was too good to be true. I voted for it in the Legislature at that time. No, I was not Prime Minister then, I was Attorney-General, and we were prepared to give a reasonable subsidy in land for the building of the railway and money for the carrying of the mails. I don't know whether I have covered all the points, Mr. Chairman, to which you referred.

4368 The only other point is where the basket coal is to come from?—On that question, of course, there is no difficulty in getting coal at the Liverpool end or at Glasgow, and there is no difficulty in Halifax or at St. John's. We always have large quantities of coal on hand, and whilst coal is not at present developed in Newfoundland, you are able to procure coal that is satisfactory and reasonably cheap.

4369 Is it your idea that the boats would not make the West of Ireland a terminal port, but go on with their cargo to a British port?—Well, if your scheme were to have a ferry, then, of course, the mails and passengers and light freight might go from Galway across to Dublin, and go on to the ferry there and right on to rails again in Great Britain. In that case the steamer could go on with the light freight to Liverpool, tranship there, then go back to Galway and be ready for mails and passengers to embark. These steamers would do such a service as that and give them a week on this side and a week on the other side. While being cleaned up the steamer could be coaled and the freight taken out.

Mr. Wilson-Fox.

4360 I understand you are putting it on the basis of a weekly service?—It was a fortnightly service that we had. That would be a fortnightly service.

4361 In order to get the bulk of the mail traffic a fortnightly service would not be sufficient?—No.

4362 There would have to be more frequent boats?—Yes. Of course, this has to be considered as an important element as regards the ferry between Great Britain and Ireland which is to deal really with passengers, but it is not at all impossible that as soon as the war is over nearly all that kind of work will be done by aeroplane. We have, as a matter of fact, a regular service to-day. Our aeroplanes are carrying 15 passengers from England to France. I don't suppose that that is generally known, but it is a fact that to-day there is a regular passenger service between this country and France, and the Civil Aerial Committee, of which I was a member, reported on the whole question of civil aeroplane work after the war, and pointed out that not alone was that class of work possible, but it was likely that we would have regular Transatlantic services. I don't say that that will be done for many years perhaps, but there is a service now running between this country and France.

4363 Don't you think it would take many years to get the general public to use aeroplanes?—I think they will adopt the aeroplane as quickly as they adopted the motor-car, because it will be made absolutely safe after a few years.

4364 Then your view would be, if you wish to develop fast passenger traffic in future, it will be done by the aeroplane and not by the acceleration of the railway and steamer service?—For short distances, as between Holyhead and Kingstown, the aeroplane service is almost certain to be adopted.

4365 I am thinking to what extent that would replace services that we are now accustomed to, or whether it is only the few who would use the aeroplane, because you could not have heavy luggage?—I suppose the luggage would have to follow by boat.

4366 What we wanted to ascertain, I think, principally was what chance there would be for a service of fast boats with an Irish terminal port, and presumably touching St. John's, Newfoundland, making a living by the transport of mails, passengers and goods. Presumably such a service would have to depend primarily

Mr. Wilson-Fox—continued.

for its living upon a mail subsidy; second, by a certain number of passengers, who if they wish to travel fast would take that route in preference to the longer route in the larger boats to Liverpool; and, thirdly, we want your views as to the possibility of getting goods traffic in quantities sufficient to pay such a service?—I can sell you this—for over 60 years before the war the Allan Line ran regularly with three boats. They had a subsidy for a number of years.

4367 But not making a terminal port?—No. I should suppose that sufficient freight could be worked up between the two countries—Canada and Ireland via Newfoundland.

4368 Now you are speaking of freight and goods?—Yes.

4369 That is, Irish produce and Newfoundland produce?—Yes, and Canadian. It would be necessary to go into the whole matter with a view to seeing what the exports and imports have been in the case of the two countries for years which would have gone that route.

4370 It would be very valuable if you could go into that matter and give us a statement?—Yes, I will try to get that information for you.

4371 As regards passengers, it would, of course, be very largely a question of opinion. Do you think the shorter route would attract passengers?—I think thousands of people will always go by the shorter sea route. I know that these boats I have been speaking of, notwithstanding that they were in competition with many other lines and even lines of the same company always had a very large list of passengers both from Newfoundland and Canada.

4372 The passengers wanted to get off the sea as quickly as possible?—Yes.

4373 As regards the mails, if such a service were established I presume it would command them as long as it could deliver faster than any other route?—Yes.

4374 The service would require to be more frequent than fortnightly?—Yes. I would say weekly.

4375 And that means increasing the tonnage?—Yes. Still it is important to consider why, if there was a service, it could not be assisted by allowing the ship to go on to a port in England. There was the crime that for 70 years these steamers going to Queenstown never went to a port. Freight of all kinds for Ireland passed Queenstown and was never landed. This was done as if it was a systematic policy to kill Irish trade.

4376 Neither Queenstown nor any port in the North of Ireland would give such a short route as Galway?—That is so. I think it is a pity that in the past there has been too much overworking in certain British ports while other ports, which have splendid facilities, are neglected. Take Liverpool. These boats are on top of each other. Every line wants to go to Liverpool, like everyone wants to come to London, and they pass by a port like Bristol, that at one time was the first port in the Kingdom.

4377 Is not the reason that it is the cheapest thing to do to deliver by sea to the nearest point where the goods are to be consumed?—That may be so. They are not consumed in London. They are sent all over the country.

Mr. Fidd.

4378 Would not facility of distribution have something to do with that?—There are a great many lesser that are not taken into consideration—the amount of storage and wharfage that has to be paid in a shipping port like Liverpool, and all the handling that would be involved if they went to a place like Bristol or Fleetwood and some of those places that are not overcrowded.

Mr. Hanson.

4379 Liverpool happens to be the centre of a great industrial area and there are great facilities for distribution?—Not better than Bristol or Fleetwood in proportion to size.

4380 The consumption of raw products would be greater from Liverpool than from Bristol?—Yes, but look at the map and see Fleetwood and see the immense centres that it feeds.

Mr. Wilson-Fox.

4381 We approach this subject more from the point of view of seeing what facilities—improvements—could

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Mr. Wilson-Fox—continued.

could be made in the general transport system for the encouragement of trade. It is no use our considering improving a certain place until we are convinced that it would be good business for someone to start the enterprise.—You want to see where the trade would be that would come from Ireland as a terminal port.

4382. Yes.—It is very difficult to show where the freight would come from, as in the past there were no trade facilities at all. We could get nothing from Ireland in Newfoundland except through England. Irish bacon had to go to England or Scotland or Canada or to somewhere else before Newfoundland could get it.

4383. I am thinking more of the other end at this moment. You are inclined to think that, if there was a terminal port, produce would flow out of Ireland?—Yes, and into Ireland. For 70 years Newfoundland has been a large importer of Irish bacon, Irish linen and other Irish products, but we never got a pound direct from Ireland because there was no direct trade from Ireland.

Mr. MORRIS.

4384. You got it from Liverpool or Glasgow?—Yes, and we had to pay the double freight and handling.

Mr. Wilson-Fox.

4385. You think Newfoundland would take a good deal of Irish products?—Yes, but I cannot say what they are. I would want to go over all our imports from England, from Canada, and the United States and other countries and find out what portion of these were Irish products.

4386. Conversely, you would consider what Newfoundland would send back to Ireland?—Yes. We don't know what Ireland is consuming to-day that she might get from Newfoundland. I am pretty certain that there are tinned goods used there from Japan, and they might use our tinned lobsters that we sent to Germany before the war, and purchase our cod and seal oils, our fish, our paper and our pulp.

4387. If you could find time to give a statement to the Committee on this matter, we would be greatly obliged?—I shall do so.

Mr. Lindsay.

4388. You spoke of liners going into Queenstown and not being able to go alongside the pier?—Yes.

4389. Do you think that if they had been able to go alongside that they would be able to discharge for Ireland?—Yes.

4390. Can you suggest what class of goods would have gone to Ireland?—All I know is this: Newfoundland with a small population had a great deal of freight to go by these steamers, and we got a great deal of freight by these steamers, and I don't know why Ireland, with a population of four or five millions, would not also require a good many things from Canada and Newfoundland. It would be interesting to know, for instance, what Ireland consumed in the way of Canadian produce the year before the war. This certainly would go a long way.

4391. You have to take into consideration rather what part of Ireland they would go to?—In the case of going to Queenstown, they would have to be distributed to other places in Ireland that would require the goods.

4392. Supposing they were going to Belfast, for instance, would it not be cheaper to send them to Liverpool or Glasgow?—I would answer that in this way, a great deal would depend where the whole freight was going. If the whole freight was for Belfast, then it would be absurd to land it anywhere else.

4393. Supposing there was a certain proportion?—Yes, say one-third for Belfast and two-thirds for the rest of Ireland, in that case you would have to take into consideration the cost that would be entailed to the other two-thirds in the distribution all over Ireland as compared with the convenience of the one-third.

4394. The boats you were speaking of carried freight from Great Britain as well as Ireland?—Yes.

4395. My point is, was it not cheaper to take the goods to Liverpool and to send to Dublin and Belfast on sea rather than by rail from Queenstown to Dublin and Belfast?—That is a matter of calculation.

4396. The sea will always beat the rail?—In most cases it will, particularly long distances. Similarly with outward goods. Guinness stout and whiskey, for

Mr. Lindsay—continued.

instance—it would be easier to send these from Dublin to Liverpool rather than to Queenstown or Galway. The sea distance from Dublin to Liverpool is about the rail distance from Dublin to Galway, and again the sea will beat the rail, so that the goods pass Ireland in each direction for a very good reason. I am afraid that that and they are a long way from the West Coast of Ireland. The two principal centres are Dublin and Belfast. They attract and send the biggest proportion of freight, and they are a long way from the West Coast of Ireland. If you had the boats you speak of, only 15 knots an hour, would it not be quicker to send much by the faster boats?—No. When boats like the "Mauretania" or the "Lusitania" arrive in New York, it takes 48 hours to send back to Halifax the mails she brought.

4397. What about places like Montreal?—It would be better for Montreal to send the faster boats, but there are thousands of passengers that would prefer to go direct to Halifax than to go to New York.

4398. I am speaking of mails alone?—Mails, of course for places like Montreal, where the mails would go in ten hours from New York, would be in a different position from places where it takes 48 hours before the mails would be landed, but then Montreal is not Canada, and there are a number of people in Eastern Canada.

4399. I gather that your suggested service is not exactly friendly to the All-Red route proposal. They had a faster service?—Yes. A service should be provided which would be just to the countries contributing and what they are entitled to whether they contributed directly or not. Countries, like ours, have been de-frauded—perhaps that is too strong a word—out of their just possibilities of development. Everybody has helped in one direction. There is no doubt about it.

4400. The All-Red route did not propose to call at St. John's?—I don't think so.

Mr. Field.

4401. Did I understand you to say that you were aware that for 70 years there was a service between Liverpool and St. John's?—I said that about 70 years ago there was a service between Galway and Newfoundland, and since that time a service with Liverpool has been practically maintained. The Allan Line have had a service for over 50 years.

4402. From Galway?—No, from Liverpool to St. John's and on to Halifax, calling at Queenstown in some years.

4403. Have you had any experience or do you remember when the Allan Line ran from Galway to America?—No, I am not aware if the Allan Line ever performed this service. I do not just now remember the name of the company.

4404. Is it your opinion that a service could be carried on with some Irish Western port, Galway or Blackhead Bay, as a terminal port?—Yes.

4405. What I mean is that the vessel would not come to the English Channel, to Liverpool, but that you would be able to run a service with the passengers and the mails and light parcels and whatever commodities we could give you in Ireland—do you believe such a service could be established successfully?—Yes.

4406. A service could in your opinion be established between a terminal port in the West of Ireland and Canada via Newfoundland, and your opinion is that we have practically no freight facilities from Ireland for the export of our produce?—We never had any direct trading connection with Ireland from Newfoundland except in the early years I have spoken of.

4407. And if your people wanted Irish bacon or linen you had to go to New York or some place else for it outside Ireland?—Yes, we should buy it outside Ireland, perhaps in England, United States or Canada, or at least it would come to us through those countries.

4408. And these commodities pass by Newfoundland, and there was no freight connection between Ireland and Newfoundland?—That is right.

4409. And you are of opinion that a sufficient volume of traffic and passengers would be forthcoming to enable such a line to be successfully established?—I know that a very large trade could be developed.

4410. Are you of opinion that passengers would prefer that route by reason of the fact that it would be the shortest sea voyage?—Yes, a great many would go that way, and, of course, you have got to remember this, that

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that a great number of passengers from Canada and from the United States and Newfoundland are bound to Ireland in the first instance. They may afterwards visit England, and thousands of passengers have to go to England and then come back to Ireland.

4411 So you think this affords a favourable opportunity for establishing such a route, particularly for passengers?—Yes.

4412 Have you any recollection, in 1899 I think it was, when there was a proposal mooted about starting this line? Did that come under your notice?—I heard of a contemplated service.

4413 At that time?—Yes.

4414 Have you any idea what the Canadian Government is likely to give any help in connection with this route?—I cannot give you any information on this point.

4415 How does Newfoundland stand?—The Newfoundland Government was always ready to help by a subsidy. What they may do now I cannot say.

4416 At a former time they did give a subsidy?—Yes, at one time we paid from £12,000 to £15,000 per annum.

4417 Have you any experience of train ferries?—No, except of a very small one in Canada about a mile in length. The Inter-Colonial train from Halifax to Montreal goes over the sea at one place, Point Tupper, for a mile.

4418 I take it that you are rather of opinion that later on all the mails will be practically carried by aeroplane, even from America?—There is no question about the mails. I have not a doubt in my mind but that all the mails will go by aeroplane. It is only a question of time. I should be very much surprised if, within a year after the war, all the mails between Ireland and England and England and France are not sent by aeroplane. As I have already stated, there is no evidence at the present moment a passenger service between England and France which is in no way affected by the weather, by wind or rain; but as to long distances, such as the Atlantic, it will take time for the invention to mature.

4419 I take it the general trend of your evidence is that there is an opening for an absolutely successful route from a Transatlantic port in the West of Ireland to Canada and Newfoundland. Whether it would be worked as an independent route, or go to Liverpool or not, would be a question for consideration, but you believe there is a really good prospect of establishing a service on a commercial basis?—I believe a very large freight and passenger trade could be worked up, and it would be very well worth an experiment from an Empire standpoint. Of course, you must have large, fast boats for the service. Small, slow boats would strangle the enterprise at its inception.

4420 Do you believe that, owing to the development of agriculture and industry that is bound to take place after the war, such a line would be an Imperial advantage as well as an advantage to the three kingdoms?—Yes.

Sir FRANCIS FOX, M.A., B.Sc., 56, Moorgate Street, London, E.C.4, one of the Engineers connected with the construction of the Mersey and Stimpson Tunnels, called in; and Examined.

Chairman.

4431 You are a member, Sir Francis, of the Institution of Civil Engineers?—Yes, sir.

4432 And you are a member of the firm of Sir Douglas Fox and Partners?—I am.

4433 You had a good deal to do with the construction of tunnels?—Yes. I suppose I have been consulted about as great a mileage of tunnels as anyone.

4434 You constructed the Severn Tunnel?—No, but I was one of the engineers of the tunnel under the Mersey between Liverpool and Birkenhead. I was also the English representative in connection with the construction of the tunnel through the Alps—a tunnel 12½ miles in length. It is the longest land tunnel in the world. Of course, there were very great difficulties that we had to contend with, and I shall very briefly refer to them.

4435 You have also had something to do with the proposed Channel Tunnel?—Yes, for a good many years now.

4436 This Committee are very anxious to have your views as to whether it is feasible to have a tunnel to Ireland?—Yes. I have devoted much consideration to

Chairman.

4421. Is the population of Newfoundland increasing?—Yes. It has increased in a larger proportion than the eastern provinces of Canada, and that increase is not due to emigration, because in the last 50 years we have not had as many emigrants into Newfoundland as have settled in Eastern Canada.

Mr. Hanson.

4422 What is the population?—A quarter of a million.

Mr. Lindsay.

4423 When was your census?—1911.

Mr. Hudson.

4424 I presume that you expect the Allan Line service to be resumed after the war?—I dare say it will. The Allan Line and the Furness Line were running almost up to the declaration of war. We have no regular service at all now. There is only an occasional freight boat of the Furness Line.

4425 That is owing to war conditions?—Yes.

4426 I gather from your evidence that you are in favour of a port of call rather than a terminal port in the West of Ireland?—Well, I favour it in this way. After the trade was worked up it might be found that you could have a terminal port there, and that the ships need not go to Liverpool, but in the experimental stage it might be necessary for the vessels to go on to Bristol or to some other port to land, say, a portion of their freight.

4427 You think it would not be possible to launch out and make a terminal port with some effort was made to work up a connected trade?—Yes. I think if such a service as that was largely assisted by the three countries interested in the nature of a subsidy to increase and develop trade within the Empire, that, after a few years, you would be able to reduce that assistance considerably.

4428 The service would be supplementary to the main services that are now working?—Yes.

Mr. Wilson-Fox.

4429 Do you think, as a result of what has been taking place during this war, that the passenger and goods traffic between the United Kingdom and the American Continent is going to be largely increased?—I think so. I was going to say that if the Committee could formulate a number of questions I would have them answered, but it might be necessary for me to send some of them out to Newfoundland. Of course, you understand that I am here entirely in my private capacity.

Chairman.

4430 We understand that. We are very much obliged to you for the information you have given us and the statements you have promised to send us?—I am only too delighted to help if I can.

Chairman—continued.

The question of the proposed tunnel to Ireland. I know the various routes that have been suggested for the crossing, and have conferred with my brother, Sir Douglas Fox, and the late Mr. James Barton on the subject over a period of some years. First of all, in order that your Committee may be able to form some idea of what has to be done to secure that communication, it will be necessary very briefly to refer to other tunnels where similar difficulties had to be encountered. The first one I would refer to is the Mersey Tunnel under the river at Liverpool. In that case the maximum depth of the river is about 100 feet, and the depth of the pumping shaft is 130 feet. A drainage heading was driven on both sides at a depth of 170 feet, rising on a gradient of 1 in 500 and meeting in the middle. This was done in order to ascertain the "feeders" and the geological conditions. The largest springs—and I think this is a matter of great interest to your Committee—came from the land. The bulk of the water did not come from the river, but from the fissures that cropped out in the red sandstone rock on the Birkenhead side. These springs would come from the

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(Continued.)

Chairman—continued.

the land, not from the river. As we drove from shore to shore we encountered a number of springs which we had previously met with at the shaft, and which eventually we had to deal with in the heading. (The witness produced sections and drawings of the Mersey Tunnel and explained them to the Committee.) He continued.—The fissures I have referred to did not give us anything like the quantity of water that came from the land. That was due to the fact that in the course of ages the fissures that existed in the bed of the river had been filled in with indurated clay, and thus formed a fairly watertight joint. We had no experience to tell us whether the fissures would get soaked, or whether the body of the rock would get saturated with clay, by which means the "filters would get choked," and these would be a diminution in the feeder. The result is that in 30 years the total feeders, which were 7,000 gallons per minute when we began, are now 4,000 gallons a minute, so that there is a reduction of a thousand gallons per minute due to the "choking of the filter." The total pumping power is about 10,000 gallons per minute, so that we have something like three times more power than the actual feeder. It is always important in pumping problems to have an ample margin so that in case of a unit breaking down you have something to put on. There is a danger to life in the driving uphill of an experimental heading unless "single shafts" are provided. We began by sinking a vertical shaft of the shore, down to the maximum depth, and drove up on an ascending gradient of 1 in 500, but there is a danger in that, and it nearly became very serious in the case of the Mersey Tunnel. Although I had given instructions that the men at the face of the gallery should have communications so as to be able to signal, they neglected to fit them up. The result was that one day the pumps broke down, and the men working at the far end of the gallery found that the water was rising to their ankles. They beat a retreat, and went back to the pumping shaft, and by the time they reached it the water was up to their necks; if they had been down another quarter of an hour they would have been entirely trapped. The consequence of that is, in a subaqueous tunnel if you drive uphill you must have escape shafts. The maximum speed of construction was 66 yards in six days, equal to 11½ yards per day. The hydrostatic pressure was 37 lbs per square inch. We did not attempt to stop the water by brickwork, as we felt certain that no brickwork could be made watertight. The next tunnel I would refer to is the Severn Tunnel. The greatest depth of water is 26 feet, and the greatest depth of pumping shaft is 183 feet—very similar to what we encountered at the Mersey. One difficulty was driven on the Welsh side. It had a pumping power of nearly 100 per cent. over the feeders. It was not possible to stop the water by brickwork. It was attempted, but the bricks would not hold it, and they had eventually to let the water run free, as it is to-day. (The witness produced and explained sections and drawings of the Severn Tunnel.) The next tunnel, he continued, is an interesting one—the Sumpston tunnel. Though it is not a subaqueous tunnel, water difficulties had, however, to be encountered. I also produce sections and drawings in connection with it. The tunnel was drained by gravity. There was a lake 4,000 feet above the tunnel that burst in, and the hydrostatic pressure was sufficient to destroy anything and blow the great drills out of the rocks like rockets.

Mr. Field.

4437 Was the lake above you?—Yes, nearly 4,000 feet above us. In the thermal zone we encountered a temperature of 151 degrees in the rock and 117 in the water that came in. The hydrostatic pressure was so great that you could not stop the water, and to this day it is allowed to flow freely away.

Mr. Wilson-Fox.

4438 If you had not been able to let it flow you could not have done anything?—No.

Mr. Hennessy.

4439 You would have to stop the tunnel?—Yes. On the Swiss side the gradient was 1 in 500 and on the Italian 1 in 143. The total feeders in summer are—

Mr. Hennessy—continued.

cold water 17,000 gallons per minute and hot water 4,300 gallons per minute. The maximum speed of construction was 37 feet in a day. I shall next refer to the proposed Channel Tunnel between England and France, in connection with which I hand in a longitudinal section. It is the tunnel that raised such great discussion about the question of military precautions. I gave a lecture on the subject of the tunnel before the Royal Geographical Society, and I hand in a copy of that lecture to the Committee, who may find it interesting. If you turn to page 2 you will see a diagram, and it is described on the section, showing a "water lock." I would like to say that I had no idea that Lord Sydenham had proposed exactly the same thing, and therefore when I put it here he very naturally thought I was copying him. It was an unintentional coincidence in the case of two minds that were trying to solve the same problem, and credit is due to Lord Sydenham and not to me. In the case of the Channel Tunnel the total length under the sea is 34 miles, the greatest depth of water is 180 feet, the lowest depth of rails below high water is 250 feet, and the hydrostatic pressure is about 109 lbs. to the square inch.

4440 Only 109 lbs.?—Yes, sir. Assuming the construction of 300 feet a day at each face, to advance 12 miles the period of construction would be 2½ years; assuming 60 feet, the period would be 4½ years. Now we come to the proposed tunnel to Ireland. Unfortunately, I have only two copies of the plans. There are the four routes that were investigated by the late Mr. James Barton.

	No. 1 Route.	No. 2 Route.	No. 3 Route.	No. 4 Route.
Length of tunnel under sea, miles	84	35	33	20
Total length of tunnel, miles	34	35	34	32
Length of headings not in tunnel, miles	10½	12	12½	18
Depth of pumping shaft, Irish side, ft.	790	740	750	1,040
Depth of pumping shaft, Scotch side, ft.	740	740	1,035	1,030
Length of railway to construct to junctions, miles	7½	5½	1½	32
Maximum depth of water over tunnel, ft.	506	506	817	894

These compare with the Channel Tunnel between England and France as follows:—

Length under sea, 34 miles.
Total length of tunnel, probably 50 miles.
Depth of water, 160 feet.
Hydrostatic head, 109 lbs per sq. inch.

There is no doubt that the construction of a tunnel under the Irish Channel is a much more difficult matter than the one under the English Channel in consequence of the greater hydrostatic pressure. For, although I have given the maximum depths of the sea, the hydrostatic pressure on the walls of the tunnel would, in each case be considerably greater, amounting to, in the case of No. 1 1790 ft., No. 2 740 ft., No. 3 1,035 ft., No. 4 1,500 ft. Additional difficulty would of course present itself in the difference of gauges between the railways in Scotland and Ireland. My brother (Sir Douglas Fox) and Mr. James Barton had an interview with the Treasury on the subject of the tunnel under the Irish Sea, and that is the paper that he prepared.

Chairman.

4441 Which of these four routes do you think is the most practicable?—You have asked me a very difficult question. In the case of No. 1 route the maximum depth of water over the tunnel is 806 feet, whereas in No. 4 route it is 894 feet. That is a very great difference.

Mr. Hennessy.

4442 What is your hydrostatic pressure?—About 436 lbs. to the square inch.

4443 Only 435 lbs.?—Yes; that is pretty high. That is one of the great problems that would have to be solved in the case of the Irish Tunnel.

4444 Is it advisable?—Yes, I think it is. Whether there would be a shorter route than any of these four

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Sir FRANCIS FOX.

[Continued.]

Mr. Hanson—continued

I have mentioned I am not in a position to say, although I am told that there might be a shorter line from the Giant's Causeway to the Mull of Cantyre, but it has not been examined.

Mr. Lindsay. It is quite useless. It would be longer in time than any of the others, though shorter in distance. It is only twelve miles from land to land, but it would take longer to travel to any place in Ireland than by the present routes.

Mr. Field.

4445-6. It is out of the way, Sir Francis?—Yes. I just gave you the facts in connection with the routes. You must draw your own conclusions. These are the facts I have given which any engineer would have to face, and those particular diagrams which I have put before you really relate to two of these different routes. In No. 1 route the depth over tunnel is 566 feet and in No. 4 it is 694 feet.

Mr. Lindsay.

4447. What is the pressure?—In dealing with pressure in a tunnel you must deal with it in one of two ways. You must either let it flow by gravity, and then you would have no pressure to your lining or brick work; or you must attempt to stop it, and in that event you get the full hydrostatic pressure, and therefore your material would not be sufficiently strong to carry that load.

Mr. Field.

4448. You are speaking of the water that comes into the tunnel?—Yes.

Chairman.

4449. It is quite feasible to have a tunnel to Ireland?—Yes. I don't think it is really impossible, but what I would suggest is that it might be very desirable to try the experiment. I would not advise constructing the actual tunnel until a preliminary heading was driven.

4450. Do you mean a drainage tunnel?—Yes, sink the shafts and drive the drainage heading from each side. In order to do that you would practically have to drive two headings—an upper and a lower.

4451. Would that be a very expensive matter?—It would cost a large sum of money. How much I should not like to say. I do not think you would get any contractor to undertake this work for a lump sum. I think it would have to be done as an Imperial matter, but finance is not my department.

4452. What length of time would the tunnel take to construct?—I can tell you the maximum speed with which the tunnel was driven under Liverpool—11 1/3rd yards per day. In the case of the Stranmillis Tunnel the maximum speed was 37 feet in a day. In the Channel Tunnel from Dover to Calais the speed would probably be four times that. The limiting of the speed is the getting rid of the material that is excavated.

4453. It would mean a matter of eight or ten years in the case of the Irish Tunnel?—I should think you could do it in seven years. You could drive a heading from shore to shore in seven years.

Mr. Wilson-Fox.

4454. Not the tunnel, but the heading?—Yes.

Mr. Hanson.

4455. The smallest depth on any of the proposed four routes suggested in this memorandum is 725 feet?—Yes.

4456. That would give a hydrostatic pressure of 313 feet to the square inch?—Yes.

4457. Do you think you could introduce any mechanical contrivance to relieve a pressure of that weight in the tunnel?—You could do so.

4458. Something has been devised to prevent hydrostatic pressure of that kind forcing the shaft?—Yes.

4459. There is no existing analogy for the Irish Tunnel?—No. I may say that it took six sixteen years to convince the good people of the country that the Mersey Tunnel was possible.

4460. With regard to finances, has not great progress been made as to sealing them?—Yes. They contemplate them—that is, they drive in cement under very high pressure in all directions, rendering the strata impervious.

4461. Is that vertical pressure?—Yes.

Mr. Wilson-Fox.

4462. Before you carried out the cementing process you would have to check the pressure with a very strong steel lining?—Yes.

4463. And you would push that as you went in?—Yes.

Mr. Field.

4464. You believe that this tunnel could be constructed if sufficient money is spent on it?—Yes. I would be willing to make the attempt myself, if the Government provided the money.

Mr. Wilson-Fox.

4465. The cement process has opened up possibilities that did not exist previously?—That is so. For the last 20 years I have been using the process in one form or another. It was introduced by Mr. Greenhead with great success. You would have no tunnels in London if the cement process had not been adopted. It makes the tubes watertight.

4466. Have you studied the information that is available as regards the geological strata in routes No. 1 and No. 2?—Not beyond that paper of Mr. Barton's.

4467. Would the first present any special difficulties?—I think you could get through the strata comfortably. When you went to the red sandstone you would have to adopt cement.

4468. In reading Mr. Barton's paper I was rather surprised to find that he estimated the cost of the tunnel only at eight millions. Do you think that is an optimistic estimate?—I should think so. I should not like to make an estimate for anything nowadays.

4469. In proportion to the whole cost, the labour bill is not the most serious matter?—No, except that labour comes into the cost of all the material.

4470. I suppose the eight millions was not for a double tunnel?—It was for one. It is far better to make two single tunnels than one double.

Mr. Field.

4471. With the single tunnels side by side—50 or 60 feet apart?—If you turn to that section of the Stranmillis tunnel you will see that there are two tunnels side by side.

4472. When you spoke of constructing 11 1/3 yards a day in the case of the Mersey Tunnel, did that mean from both sides?—Yes, double that.

4473. The rate of progress depends on the hardness of the material?—If you get a proper drill you can get through a fairly hard rock as quickly as anything.

4474. Has the piercing machinery been very much improved?—Oh, yes. I would like to say that I am a very strong advocate of never working on Sunday. Independently of the question of religion—though I attach very great importance to that—a day of rest for man and horse, and even machinery, is a very important matter. Only a few years ago in connection with the construction of the London and Great Central Railway, my brother and I were superintending the construction of a tunnel, and in the contract we put a clause, as we always do, that no work was to be done on Sunday except under necessity or accident. The contractor said to me, "I want you to exchange that clause; you will lose time if you don't have Sunday work." I said, "No, you will save time; we will not exchange the clause." The same man also undertook the construction of a tunnel in the North, and in the contract there was a clause to the effect that Sunday work was to be done, and it was done. When both tunnels were finished he said to me, "The suppression of Sunday work on your tunnel saved me time, because on the other tunnel the men, on Monday morning, came back tired and unfit for anything, and the horses, and even the machinery, wanted their day of rest."

Mr. Wilson-Fox.

4475. If you had to drive a double tunnel would it mean double expense?—No. It would, of course, be more expensive than one single tunnel.

4476. And the estimate of Mr. Barton, was that for a double tunnel?—Yes.

4477. And it compared fairly closely to what was the original estimate of the Channel Tunnel?—I cannot answer that.

4478. What is your estimate for the Channel Tunnel?—It is impossible to give an estimate.

4479. What

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SIR FRANCIS FOX.

[Continued.]

Mr. Wilson-Fox—continued.

4479 What was your pre-war estimate?—I don't carry the figures in my mind now.

Mr. Ruden.

4480 Did you give a reason why you would prefer two single tunnels to one double?—In the case of a double in a single-line tunnel, you would not get a very disastrous smash up, and it is a splendid system for ventilation. In constructing you have one tunnel for incoming traffic and the other for outgoing traffic. All is in favour of two tunnels.

4481 Is there anything else in the point of strength?

Major MAITLAND KIRKE, D.S.O., Managing Director of the Canadian Pacific Ocean Services, called in; and Examined.

Chairman.

4485 You are Managing Director, Major Maitland Kirke, of the Canadian Pacific Ocean Services?—Yes.

4486 You have had considerable experience of the North Atlantic passenger services?—I have made 98 passages across the Atlantic.

4487 We are very anxious to find out from you the feasibility of your vessels calling at Ireland on the outward and homeward voyages?—Yes. In peace times we called at Moville (Londonderry) and, occasionally, at Queenstown for passengers only.

4488 Do you think that after the war your company's vessels will resume calling?—Yes. Certainly on the North of Ireland.

4489 How do you find Moville?—It is a fair port for calibrating by tender.

4490 Would it be possible if there was a deep-water berth at one of the ports in the North of Ireland for your vessels to call regularly?—I don't think that it would be worth while having quays or piers made. The service is quickly done by passenger tender.

4491 But for carrying freight?—I doubt very much if it would be worth while. Of course, after the war, conditions may be changed. In the past it has been cheaper to send freight by the coast lines and for vessels to load their cargoes in the port of Liverpool and then embark their passengers. It is a very bad arrangement to embark a number of storage passengers and then have to reopen the hatches. It is unavoidable in one of our services—the London-Havre service.

4492 Your opinion is that that port in the North of Ireland could only be used for passengers and mails?—Yes, for passengers and such mails as there might be. Local mails from Belfast could pass via Liverpool.

4493 Are you referring now to your mail boats?—Yes. Practically all our steamers carry passengers and most of them mails. Ten or 11 years ago there was a scheme proposed to run a service calling at Galway to some port in Canada, and I went into it at that time very closely, and I think it was distinctly proved that it was a non-feasible proposition.

Mr. Hanson.

4494 Not feasible?—No, because the average Atlantic mail would arrive in Liverpool and her passengers and mails in London much more speedily eliminating the call. If you are running fast mails, the idea is not to call for the smaller part of our mails. If we had our choice, we would always run our fast mail steamers from Liverpool to Canada direct and have an intermediate service calling at Moville once a week.

Mr. Wilson-Fox.

4495 Your view is that there would be no saving in time if you called at an Irish port for mails. Your point is that this mail could not be posted any later?—I should say so off-hand.

Mr. Hanson.

4496 As affecting the North of Ireland, but not Queenstown?—It was distinctly proved by the Cunard Company with their fast services that it did not accelerate the mails to call at Queenstown.

Mr. Wilson-Fox.

4497 Could you not post a letter later in London for America if the boat called at some port in the North or South of Ireland, than if the mails were made up at Liverpool and left from there?—No. You could post later and delay the boat.

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Mr. Hanson—continued.

—There is. You have not got the same vertical pressure.

Mr. Lindsey.

4498 This estimate of Mr. Barton's was made when electrical haulage was not so well known?—That is so.

4499 Electrical haulage would reduce the cost?—Yes.

4500 Mr. Barton did not contemplate that?—No. That was a pre-electric haulage estimate.

Chairman: I We are much obliged to you, Sir Francis, for the information you have given us.

Mr. Hanson.

4501 Not at Queenstown?—No.

4502 They did post later and special trains were run?—They gave that up.

Mr. Wilson-Fox.

4503 It delayed the whole of the mail?—Yes. The only saving was that a business man in London could have posted his letter a little bit later than the departure hour of the passenger train—two hours. The fact is that his letters would have left at 2 in the afternoon. He arranged his letters for the particular steamer, and there are so many mails a week that they had a very fine mail service before the war—including by the German line from Southampton.

Mr. Hanson.

4504 Calling at Queenstown did not give a clear working day in England?—No, nothing like it. In addition to the mail service, there was a great tendency before the war to develop week-end cables and letter-cables. You could send 30 words for a mere nothing.

4505 Is it your considered opinion, with your knowledge of the transport of mails, that a port of call of any kind in Ireland would not be an advantage?—Yes.

Mr. Lindsey.

4506 Before the Cunard people gave up their call at Queenstown on the outward journey, a business man could post up to 2 o'clock in the afternoon in London on a Saturday?—Yes.

4507 When they gave that up Saturday was knocked out altogether as a postal day, because the mail train left Kuston at 12 o'clock and letters had to be posted at 10 o'clock. That is, of course, no use from the business man's point of view?—There is very little business done on Saturday morning.

4508 There is a certain amount of banking business. Liverpool is not a place you can send very rapidly from. You are dependent on the tides?—Practically, you are not.

4509 What is the possible delay?—Very little. Some of the extra big ships might be delayed an hour or two at the very outside.

4510 Those boats might not leave until 6 o'clock on Saturday afternoon?—Yes.

4511 When they got to Queenstown at 5 o'clock in the morning the mails were always there before the boats?—The delay and the trouble of getting into Queenstown in the winter and the danger of getting in with these big boats counterbalanced any other advantage.

4512 You gained a whole business day on Saturday by the mails going to Queenstown?—You could post up to noon at Kuston and catch the mails at Liverpool.

4513 You had up to 2 o'clock by the other arrangements, and the company never made a change from calling at Queenstown until after ten years?—I think they were rather forced into the contract. I have no brief or right to speak for the company, but I know they were very pleased to get out of calling at Queenstown.

4514 It relieved them of a certain responsibility. What you say is that the North of Ireland post affects you most?—The best route of the Liverpool and Glasgow ships is to go via the North of Ireland and the Southern ports ships go by the Fastnet.

4515 Queenstown is no use for you. You never did count it as a port of call?—Some of our boats called, and some seasons when the ice is bad we go to the South of Ireland.

2 D

4153. You

4 November 1918]

Major MAYLAND KEBBY, D.S.O.

[Continued.]

Mr. Landing—continued

4513 Your principal port was the North?—Yes.

4514 Moville would be of no use as a mail port?—No, I should think not.

Chairman—

4515 If the aeroplane service is developed and mails are taken from a part of call in the North of Ireland, do you think that boats would call there?—I don't think that the carrying of heavy mails by aeroplane is a feasible proposition. You might get snow or fog. You often have a lot of fog off Ireland, and an aeroplane could not fly through. It is quite true that a super Handley-Page aeroplane could possibly carry 15 tons, but we have perhaps 600 or 700 measurement tons of mails on a ship. We sometimes have 10,000 bags, packages and baskets of mails on one ship. That you could not get into any aeroplane.

Mr. Landing.

4516 Was that weight of mails pre-war?—Yes, the quantity. The mails come down to Liverpool from Glasgow or London or elsewhere. They are allowed in the mail rooms the night before sailing, and the vessel has a large quantity of mails on board before leaving the docks. The final mail train comes down to the Prince's Landing Stage.

4517 What is the weight of these last mails?—Fifty or 40 tons measurement. I do not think the aeroplane is feasible in connection with the Atlantic mail service. The Newfoundland boats call at Moville. They are a very small type and slow.

4518 You are not interested in the Irish terminal port?—No. I don't think that would interest us at all.

(Chairman.) We are very much obliged to you.

(The Sitting then concluded.)

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APPENDICES.

APPENDIX I.

STATEMENTS handed in by Sir John Power Gifford M.A.I., M.Inst.C.E., Ex-Chief Engineer, Dublin Port and Docks, during his Examination on 9th September, 1918.

(a)—WESTERN HARBOURS OF IRELAND.

An Enquiry into the suitability of various Bays and Estuaries on the West Coast of Ireland for the formation of a Commercial Port and Naval Base.

The need for a western port on the west coast of Ireland, suitable for the landing of the transatlantic mails and high speed passenger traffic, has long occupied the consideration of the British Government; and the problem of transatlantic communication has been considered by Commissions and Committees specially appointed for the purpose. Much valuable information was collected; but the conclusions arrived at in the days when steam navigation was in its infancy, and the commerce of the country principally carried on by sailing vessels, are now of much value, and the needs and problems to be considered must be reviewed afresh in the light of present-day requirements.

The present war has brought home to us in a marked manner what losses we have suffered by not having an efficient port on the west coast of Ireland. Such a port should fulfil the functions of a naval base as well as a commercial harbour easy of access from the principal trade routes in time of war, and also be capable of accommodating the large and fast mail passenger steamers on the transatlantic lines.

In Ireland there are only two principal bases west of Queenstown where the fleets can rendezvous—Berehaven in the south, and Lough Swilly in the north. Between these points along the western coast there are four natural bays which are from time to time frequented by our vessels—namely, the River Shannon, Galway Bay, Killary Bay, and Backend Bay. These are merely natural roadsteads, without accommodation for the berthing or repairs of large vessels. Everything in the nature of the equipment of a port is wanting.

The experience of the present war is that this coast offers facilities to an enemy to land arms and men which must not be allowed to continue. Ireland cannot be allowed to become a hostile base against Great Britain. There is little doubt that Germany would have done her best to accomplish this aim, but that their fleet was impeded in their own ports by the vigilance of our Navy.

The losses from submarine warfare which our mercantile marine has suffered have drawn attention to the importance of being able to land foodstuffs on this coast, so as to reduce the risk attending navigation of the contracted waters of the English and Irish Channel. A Commission of inquiry visited the coast, and discovered that none of the existing harbours met the requirements of the case in their present condition. It has been found necessary to convoy fleets of vessels carrying troops, munitions, and food, and it is obviously important that these convoy routes should be as short as possible, thus reducing risks and freeing tonnage.

The advantage of a western port for mail and high-speed passenger services is one of growing importance to the British Empire and America, no less important to these countries in time of peace than in time of war. The development of a Canadian mail service from the west of Ireland to such a port as Halifax, reducing the ocean passage to $\frac{1}{2}$ days, would be of untold advantage, and would unquestionably develop express freight.

The economic advantages are very great. The vessels engaged on the American mail routes tend steadily to increase in size, speed, capital cost, working expenses, and maintenance. It is not an exaggerated estimate that each vessel would make thirty per cent. more crossings per annum from an efficient port on the west coast of Ireland than from Liverpool or Southampton.

The savings claimed per trip for an efficient port on the west coast of Ireland may be summarised as follows:—

1. Saving in interest and capital cost of ships.
2. Saving in fuel consumption.
3. Saving in the wages of the crews.
4. Saving in commissariat.
5. Saving in delays from channel navigation and fogs.
6. Saving in time of docking.

The passage of the American mails and passengers through Ireland would, in our opinion, be of great advantage to the country, by keeping Ireland on the principal thoroughfare of the American and Canadian trade.

Too much emphasis cannot be laid on the importance of keeping Ireland on this thoroughfare, and of passing passengers and mails through the country. It would bring Ireland into constant touch with the outer world, and reduce some of the injurious effects of its insular position.

Vicount Morley, when Chief Secretary for Ireland, spoke strongly on the desirability of retaining the passage of the American mails through Ireland. His words were — "Do not let Ireland be pushed off the great high road between the west and east." He followed this advice with the following wise words:—"But of course this, like everything else, is a matter of business."

We think the meaning of this sentence is that we must prove to England that it is to her advantage to maintain the American Mail Service through Ireland. We must prove that Ireland possesses a site for a western port, which from its geographical position and natural advantages is suitable as a terminal port for vessels engaged in the American Mail Service, and which cannot be beaten by any English port.

We believe that we are in a position to do this.

The harbours of Ireland whose fitness we propose to investigate for the combined purposes of a mail and passenger station, and naval base and commercial port, are the following:—

- | | |
|-------------------|-------------------------|
| 1. Blackrock Bay. | 4. The Shannon Estuary. |
| 2. Killary Bay. | 5. Berehaven. |
| 3. Galway Bay. | 6. Queenstown. |

Valentia and Dumanus Bay, although they have been suggested from time to time as terminal ports or ports of call, do not seem to offer many advantages.

Valentia, although now a railway terminus, and the most western harbour in Europe, has an extremely bad entrance, and is not suitably situated geographically for communication with the north of Ireland and Scotland, and is also very limited in deep water area.

Dumanus Bay is very exposed to the prevailing winds, and would require expensive shelter works. In addition, it is even less favourably situated for northern traffic than Valentia.

Let us now consider the relative advantages and disadvantages of the six above-mentioned harbours under the following heads:—

- | | |
|-------------------------------|---|
| 1. Depth and area. | 5. Naval Base and Commercial Port. |
| 2. Facility of Approach. | 6. Capacity for Development. |
| 3. Shelter. | 7. Facilities for Bunkering, Coalminerals, and Repairs. |
| 4. Position of Proposed Port. | |

BLACKROCK BAY.

1. *Depth and Area.*—Blackrock Bay, north of a line drawn from Blackrock Pier to Kalfniska Point, contains only an area of 1,313 acres outside the seven-fathom line, and even this is curtailed by a patch of 3 acres, having a depth of only 6 fathoms. No doubt this could be dredged, as could other portions of the bay.

2. *Facility of Approach.*—The *Irish Coast Pilot* (fifth edition) describes the entrance to Blackrock Bay as follows (see p. 436):—

"The entrance between Duvallunmore and Saddle Head (the north point of Achill Island) is about 3 miles wide, with a depth of 26 fathoms, and is easily recognized by day by the bold promontory of Achill, and at night by Black Rock Light, standing on the north side of the approach. With westerly winds a heavy swell rolls through the entrance, and in bad weather it breaks on a bank of 8 fathoms that lies three-quarters of a mile southward of Duvallunmore."

As regards soundings, the *Irish Coast Pilot* says (see p. 444):—

"The soundings on this part of the coast will not give the seaman sufficient warning of his approach to danger in thick weather, as deep water is met with at no great distance from it. Between Achill Head and Erris Head there are 50 fathoms at $3\frac{1}{2}$ miles distant, and 100 fathoms at 13 miles, necessitating a vigilant look-out, and a frequent use of the deep-sea lead, when endeavouring to make the land from the westward."

On Black Rock there is a very fine revolving light with a red sector to clear the rocks and islands north-east of Black Rock. There is no fog signal at this station.

Extract from the Admiralty Sailing Directions, *Irish Coast Pilot* (see p. 436):—

"Blackrock Bay, one of the finest bays on the west coast of Ireland, is easy of access, and affords secure anchorage for a large number of vessels; it was always a principal resort of His Majesty's ships stationed on this coast, and one for which they never hesitate to run in bad weather. The best sheltered parts are, however, too shallow to admit vessels of heavy draught, but a secure roadstead is afforded to these on the western side of the bay southward of Ardilly Point, sheltered from the violence of the sea by Mullett peninsula."

High water, full and change, at Blackrock pier, is at 4 h. 55 m. Springs rise $11\frac{1}{2}$ feet.

Neaps, 8½ feet. Range, 7 feet.

Wind has a marked influence on the height of the tides, south-westerly winds raising the mean level, while northerly winds depress it. A rise of $1\frac{1}{2}$ feet was observed with south-westerly winds, and a similar fall after a continuance of northerly winds.

The anchorage for large vessels is distant $1\frac{1}{2}$ to $2\frac{1}{2}$ miles north-east $\frac{1}{2}$ east from Blackrock pier lighthouse, on a bottom of sand over clay.

3. *Shelter.*—As will be seen from above, "with westerly winds a heavy swell rolls through the entrance, and in bad weather it breaks on a bank of 8 fathoms that lies three-quarters of a mile southward of Duvallunmore."

4. *Position of proposed Port.*—Blackrock Bay is situated on the 10th degree west longitude, and is at present very remote from railway communication with the rest of Ireland. In order to form a suitable connection with the Irish railway system a line would have to be constructed from Blackrock Point to Collooney Junction, via Ballina, a distance of about 88 miles. This line would have to pass through a very barren and thinly populated district. At Collooney a junction would be made with the Midland Great Western Railway for Dublin, via Mullingar, and to Belfast, via Enniskillen, Clones, and Portadown. At Ballina a connection would be made with the west and south of Ireland, via Ashenny and Limerick.

The distances by rail from Blackrock Point to various Irish ports would be as follows:—

Dublin (Channel Ferry)	219 miles
Larne Harbour	345 do
Berehaven	295 do

In addition to the construction of 88 miles of new railway from Blackrock Point to Collooney, the Sligo, Leitrim, and Northern Counties line from Collooney to Enniskillen, a distance of 44 miles, would have to be reconstructed to render it suitable for fast traffic.

5. *Naval Base and Commercial Port.*—The area of deep water available under shelter in Blackrod Bay is too limited for an anchorage for a large fleet of vessels. Should it be used in time of war as an emergency base a large area would be requisite, and the port should be capable of extension, which appears a more difficult problem in Blackrod than in other suggested ports, on account of the length of piers required to reach deep water, and the extensive reclamation necessary to provide ground for port purposes.

6. *Capacity for Development.*—Blackrod Bay, though having advantages as a port for mail and passenger service, is not suitable as a site for a commercial harbour or trade centre for the west of Ireland.

It is remotely situated from all existing centres of commerce, and in a barren and thinly populated district, which is unlikely to develop to any great extent. The only possible site for harbour works is at the extreme end of the Mullet Peninsula, involving a journey of eleven miles northward before beginning to go east. The water-supply at Blackrod Pier would appear from the Irish Coast Pilot to be extremely limited. All things considered, it appears to be very improbable that a harbour in Blackrod would be of any advantage to the country save as a mail and passenger terminus.

7. *Facilities for Bunkering, Commissariat, and Repairs.*—At present there are no facilities for bunkering, commissariat, or repairs. Everything necessary for the establishment and working of a transatlantic station would have to be provided. Coal or oil for bunkering purposes would have to be imported and stored as it would for any other Irish port. Commissariat presents considerable difficulties at Blackrod; everything would have to be brought from a distance, as the country around would not be able to furnish the necessary supplies.

A repairing establishment would have to be maintained in this remote district, where it would be difficult to retain good workmen and replace them when required. There is no local or coasting shipping repair work which would help to maintain a repairing establishment.

A new town would have to be built to accommodate the large staff and their families employed in working such a transatlantic station, and proper markets arranged. This would involve the importation of all supplies from a distance, and, as before stated, the water-supply seems deficient.

After reviewing these various points carefully, Blackrod Bay does not appear to us to possess the requisite advantages for a transatlantic station, a naval base or commercial port, nor does it appear that the large outlay necessary to build and equip and maintain a port there and construct the proposed long line of connecting railway would be advantageously spent.

KILLARY BAY.

1. *Depth and Area.*—Killary Bay is situated about 9 degrees 50 feet west longitude, and is thus described in the *Irish Coast Pilot* (see pages 417-418):—

"Killary Bay, a deep and narrow inlet, running in first in a south-easterly $\frac{1}{2}$ south, and then east-north-east direction, between high mountains for $\frac{1}{2}$ miles, and varying in width from $\frac{1}{4}$ to 4 miles, affords good anchorage throughout, and is easy of access with a steamer or sailing vessel with a fair wind; but from its contracted width, and the baffling winds to which it is subject, it is best adapted for the former class of ship."

It is high water, full and change, in Killary Bay, near the entrance, at 4 hrs. 30 mins. Springs rise $12\frac{1}{2}$ feet, neaps $5\frac{1}{2}$ feet. The tidal streams in the entrance run at the rate of half a knot.

2. *Facility of Approach.*—Of the approaches to Killary Bay, the *Irish Coast Pilot* says (see page 406):—

"The coast north eastward of Slyne Head presents features similar to that south-eastward of it, being much indented, and as far as the entrance to Clew Bay, a distance of twenty five miles, is fronted by outlying islands and rocks. Of these, Inishark, Inishbohn, and Inishurk are conspicuous. On this coast are comprised the harbours Clifden, Cleggan Bay, and the Killarries, with several creeks where fishing boats and small craft find shelter. Numerous dangers, however, impede the approach to them, rendering the exercise of extreme caution necessary to ensure their safe navigation."

"The depth of 50 fathoms will be found about one mile westward of both Slyne Head and Inishark; at three miles from them there are 61 fathoms, with irregular soundings of from 32 to 65 fathoms for five miles further westward."

"At twelve miles from Inishark there is a hollow with 74 fathoms in it, which appears to extend between the parallels of Galway and Clew Bays, with from 7 to 11 fathoms more water than is found on either side of it. On the parallel of Inishark, and twenty miles westward of it, the depth decreases to 61 fathoms, from whence it increases regularly to 100 fathoms at thirty-six miles from the shore."

"A close attention to the deepest lead, and comparing his soundings with the chart, will, therefore, enable the seaman to judge of his progress towards the shore. In thick weather it would not be prudent for him to come into less than 65 fathoms before his position is well ascertained, as the depth is found at five miles from the rocks, and also at twenty miles from them. In fine weather he may stand in until Slyne Head light changes colour from white to red, bearing S. $\frac{1}{2}$ W. The soundings, however, become very irregular as the coast is approached, with several rocky heads of 9 to 12 fathoms of water, on which the sea breaks in westerly gales."

Killary Bay is at present unlit and without fog signals, and although it has been used on occasions by His Majesty's fleet as an anchorage, to render it safe for navigation at all seasons and occasions, a very comprehensive scheme of lighting and fog signalling would have to be installed; such a scheme is estimated to cost about £200,000. By adopting recently suggested methods of position finding by radio-telegraphic apparatus, the approaches to Killary Bay could be rendered much safer in thick weather. The depth of water in Killary Bay is ample, varying from seven to twenty one fathoms in depth at the site of the proposed terminus, with no shoals or rocks inside the entrance to the Bay between Black Rock and Donee Island.

3. *Shelter.*—Once inside the entrance there is complete shelter, and at the site of the proposed works there would be no sea which would affect even a small steamer. This would enable the harbour works to be constructed without interruption from weather, and no special works to shelter the bargeage would be required. From the point of view of cost, this is an important factor in favour of Killary Bay, even taking into account the railway, and the lights, buoys, and fog signals to be provided.

4. *Position of Proposed Port.*—The position of Killary Harbour as regards communication with the Irish railway system and the various Irish east coast ports for cross-channel ferries to England and Scotland is much more suitable than that of Blackhead Bay.

The construction of the Galway and Clifden Railway has brought Killary within ten miles of the railway at Reeces, and the connection of Killary and Reeces by rail presents no engineering difficulty, being through easy country.

The distances by rail from Killary to various Irish ports would be as follows:—

Dublin (Ferry)	—	—	—	—	—	—	—	—	177 miles.
Larne Harbour	—	—	—	—	—	—	—	—	265 "
Rosslare Harbour	—	—	—	—	—	—	—	—	337 "

5. *Naval Base and Commercial Port.*—Killary could be developed to any extent as a naval base. One disadvantage which suggests itself is the extreme narrowness of its entrance—900 feet—which might by some mischance be blocked by enemy action.

As a commercial port, the harbour, except for its remoteness, could be easily extended. No breakwater is required, and wharfs and quays could be constructed anywhere along its southern shore from Deeryasliggan westwards.

6. *Capacity for Development.*—Killary Harbour is situated very far from existing centres of trade, and the surrounding country, like that round Blackhead Bay, is barren and mountainous, and it is improbable that it would ever become a trading centre.

7. *Facilities for Bunkering, Communication, and Repairs.*—Stores are available for fuel depots, but as regards communication and repairs the same objections exist as in the case of Blackhead Bay.

GALWAY BAY.

Galway Bay is situated between the 9th and 10th degrees west longitude, the most favourable site for a deep water harbour in it being about 9 degrees 12 inches west longitude on its northern shore.

1. *Depth and Area.*—There are no outlying shoals or rocks inside the Arran Islands until the Black Rock and Margaretta shoals are reached. The area of the bay for navigation purposes is ample, being 6 miles in width between Black Head and the north shore in the neighbourhood of Spiddal. High water, fall and change, at Galway Harbour is at 4 hrs. 35 mins. Ordinary spring tides rise $1\frac{1}{2}$ feet, neaps, 11 feet. The Irish Coast Pilot says:—"With extraordinary gales and other causes the tides occasionally rise 22 feet; this has occurred even at neaps."

2. *Facility of Approach.* The Irish Coast Pilot says:—

"The Coast between Loop Head and the entrance of Galway Bay, 35 miles north east by east, and forming Mal Bay, so called from its exposed aspect and iron-bound shores threatening destruction to any vessel cast upon them, is generally of moderate elevation. Sailing vessels must at all times approach it with caution, as the heavy Atlantic swell sets towards it with great fury, and there is no safe anchorage throughout its whole extent."

"The depth of 50 fathoms will be found at a distance of 12 miles from the shore, and that of 30 fathoms at one mile from it, with regular soundings, over a bottom of rock, gravel, and mud. In thick weather a vessel could not approach nearer than the depth of 50 fathoms (see p. 365)."

"The approach from the westward to the dangers between Galway Bay and Slyne Head is characterised by irregular soundings that afford no certain indication of their proximity."

"The depth of 50 fathoms is found 3 miles westward of Skird rocks, and at less than one mile from Slyne Head. Seven miles westward of the Skirds there are 55 and 56 fathoms, and at 11 miles from the same 51 and 52 fathoms, generally on rocky and coarse ground. Westward of Slyne Head, at the distance of 5 miles, the depths increase to 58 fathoms, and two miles further again decrease to 52 fathoms, while nearly midway between Skird rocks and Slyne Head the depths increase from 50 to 72 fathoms in the distance of 3 miles, again shoaling to 40 to the westward. In thick weather, therefore, when near the parallel of Slyne Head, approach the coast with great caution, and do not come within the depth of 70 fathoms until the ship's position has been ascertained (see p. 387)."

"Galway Bay may be considered as included within Gloran Head on the north, and Cape Cregga or extremity of Malier cliffs on the south, distant from each other in a north and south direction about 21 miles. Near the middle of the entrance lie the Arran Islands, occupying a range of $1\frac{1}{2}$ miles, and having at either end navigable sounds from 2½ to 4 miles wide, together with smaller channels that separate the islands from each other. Although possessing several snug creeks adapted to small vessels, Galway Bay affords no well-sheltered anchorage for large ships."

"The approach from the ocean to this deep and spacious inlet is easy and well defined; while the magnificent natural breakwater of the Arran Islands serves as a barrier against the heavy swell of the Atlantic Ocean, which would otherwise roll in with unbroken violence to the very head of the bay. The shores are moderately bold-to, and there is no danger near the fairway until within 4 miles of Mutton Island Light (see p. 345)."

Galway Bay is at present devoid of any fog signals. By the provision of these at Slyne Head and the Arran Islands, with the improvement of the existing lights, and possibly with the adoption of recently suggested methods of position-finding by radio-telegraphy, the approach could be made absolutely safe in all weathers.

3. *Shelter.*—Galway Bay is protected from the heavy Atlantic swell by the Arran Islands, but a considerable swell comes through the sounds, and this, together with the long fetch up and across the bay render necessary the construction of a breakwater, or breakwaters, at the site of the proposed harbour on the north shore of the bay about 10 miles west of Galway City. A large vessel would be in comparative shelter the whole way up the bay once inside the Arran Islands, with unlimited sea room.

4. *Position of Proposed Port.*—Galway City is situated at the western terminus of the main line of the Midland Great Western Railway, a line to Dublin which allows of express running to any speed desirable, and the gradients of which are remarkably easy. Connection would be made with Belfast via Mullingar,

Cavan, Clones, and Portadown over a line which admits of high speed. Cork would be reached via Athlone, Limerick, Charleville, and Mallow; and Waterford and Rosslare by Athlone, Limerick, Limerick Junction, and Clonmel.

The distances by rail from the proposed port would be as follows:—

Dublin (Channel Ferry) - - - - -	140 miles.
Larne Harbour - - - - -	22½ do.
Rosslare Harbour - - - - -	200 do.

It will be seen that Galway is nearer to Belfast and Larne than Blackhead Pier. The railway is more adapted to high speed traffic, and is 79½ miles nearer to Dublin, with a double line nearly the whole way. It is also more favourably situated for traffic with the South of Ireland, and with South Wales and the South of England through Rosslare.

5. *Naval Base and Commercial Port.*—Galway Bay is very favourably situated as a naval base, and as a commercial port in time of war. It is situated on the west coast of Ireland, about midway between Lough Swilly and Berehaven, and has four easily defended entrances, with adjacent harbours near the northern entrance at Cashla, Killybeg, and Bertraghboy, which would, by proper marking, be available for the shelter of torpedo and mining craft employed in its defence. Apart from the new harbour, a fleet could shelter in safety from storm and enemy action anywhere inside the Aran Islands.

As a site for a Commercial port Galway Bay possesses many advantages.

Near its head is situated the City of Galway, which already possesses considerable trade and commerce, and having a harbour capable of much improvement. From the fact of its being a tidal dock port and having a rock bottom, it is not capable of being made to accommodate the large vessels now engaged in the overseas trade.

Owing to the construction of the Panama Canal with a depth of 40 feet, and as it is more economical to run a deep-draught vessel than a shallow-draught one, all ports which hope to engage in direct overseas trade are faced with the necessity of providing a similar depth of 40 feet. Furthermore, such ships, being of great size, are forced to accept parcel cargoes for various ports, in order to fill up their cargo space. For this class of trade Galway would probably be the first port of call, and it should, therefore, be provided with the maximum depth of berthing.

6. *Capacity for Development.*—From the above it will be seen that the proposed commercial port must be able to deal with these large vessels, having regard to depth and rapid discharge of cargo, as otherwise costly demurrage and high freight will be charged, and the trade of the port hampered thereby. Rapid discharge is necessary in time of peace, but it is still more important in war time in order to make full use of available tonnage. Galway possesses advantages in this respect over all its competitors. On the north shore of the bay the townsham line is close in to the coast, and a breakwater having been formed, jetties can be built out from the shore as deep water under shelter and multiplied as required to give additional quays.

As Galway possesses in the watershed of the Corrib great water power, hitherto little availed of, power could be easily and cheaply obtained for working the port electrically, and with the greatest possible economy.

The watershed of Lough Mask, Carra, and Corrib is 780,000 acres, and the area of the three lakes is 66,000 acres, ensuring ample power all the year round.

There is a fall of 29 feet between the mean surface level of Lough Corrib and low water in Galway Bay, which gives a fall of 14 feet at high water. In addition, there is a fall of 36 feet between Lough Mask and Lough Corrib, by using which electric power could be generated at Cong and transmitted to Galway.

Besides working the harbour, this plant would also supply power to corn mills, carbide factories, and other industries in the City of Galway. We have little doubt that once this city was provided with a deep-water harbour in its neighbourhood, it would become the most important distributing trade centre in the west. The fishing industry should also be developed to a far greater extent than at present by the provision of cold storage, ice factories, and curing stations.

7. *Facilities for Bunkering, Commissioning, and Repairs.*—Provision must be made for coal and oil storage. Commissioning would present no difficulty in Galway, as the commercial machinery for it is already established in the City of Galway. Bunkering and docking accommodation should be provided capable of dealing with the vessels employed on the station and with war ships.

It is important that graving dock accommodation should be provided at the proposed port of Galway capable of dealing with the largest class of naval and commercial vessels, so as to avoid having to send them to other ports for cleaning and survey. Living accommodation would have to be built for the staff and their families engaged in working the service, but, owing to the proximity of the City of Galway, this is a comparatively simple problem. Good markets exist, and there would not be the same difficulty in retaining skilled men. We have little doubt that the establishment of this overseas port would lead to a great development of the coasting traffic of Galway, and the ships engaged in that traffic would afford additional work for a repair yard.

There is an exceptionally good water supply available, which we believe was at one time proposed to be used for the supply of the City of Galway.

THE SHANNON ESTUARY.

The Irish Coast Pilot says (see pages 329, 334, 339):—

"The Shannon River is the largest in Ireland; it affords spacious and secure anchorage for ships of the greatest tonnage, and is easy of access, its wide entrance, marked by conspicuous objects, is easily identified.

"The Shannon is navigable for all classes of ships for 36 miles above Loop Head, or within 1 mile of Boagh Castle, and 15 miles of Limerick City."

1. *Depth and Area.*—"The first anchorage in the Shannon, secure from all winds, is in Tarbert Road, 22 miles above Loop Head, and 29 miles below Limerick, in depths of 10 to 13 fathoms, but the tidal streams are strong. High water, full and change, at Tarbert, is at 4 hrs. 57 mins. Springs rise 14½ feet, neaps 10½ feet."

"Vessels can anchor anywhere between this and Beagh Castle. Foynes Harbour, 8 miles seaward of Tarbert Road, affords anchorage in 5 to 10 fathoms, but the tidal streams are very strong in the deepest part."

"Scattery Road, eastward of Scattery Island, and sheltered by it from the prevailing westerly winds, affords excellent anchorage and good holding-ground of blue mud, with a thin covering of sand, and where wind-bound vessels commonly stop. There is anchorage for large vessels in 7 to 8 fathoms."

There are ample sea-room and depth as far as the inner entrance between Kihordan Head and Kihorony Point. A little to the west of this is the Kihstiffin Bank, whence the deep-water channel becomes narrower as far as Beal Bar, after which there are good depth and sea-room as far as Tarbert Road.

By improving the lighting and buoyage, and the provision of proper fog-signalling, the approaches of the Shannon estuary could be rendered perfectly safe in all weathers for steamers of the largest class as far as Foynes.

3. *Facility of Approach.*—The funnel-shaped entrance of the Shannon, opening between Kerry Head on the south and Loop Head on the north, is nearly 8 miles wide, with a depth of 19 to 24 fathoms; but Kerry Head itself, composed of uneven, rocky ground, with 11 to 17 fathoms over its outer portion, lies 5 miles north-west, $\frac{1}{2}$ north from Kerry Head. (See page 330.) The 50-fathom line lies 10 miles west of a line drawn from Kerry Head to Loop Head, and the 100-fathom line about 67 miles west of the same line.

3. *Shelter.*—There is no shelter inside the Shannon until Tarbert Road is reached.

In the *Irish Coast Pilot* Tarbert Road is described as follows (see page 330):—

"Tarbert Road, south-east of Tarbert Island, is one of the best anchorages in the Shannon, being well sheltered from the prevailing westerly wind, and the holding-ground is good, but the tidal streams are rapid, and it is necessary, in order to avoid their strength, to anchor as close to the edge of the mud bank as is consistent with safety."

"In the stream abreast the anchorage the flood at springs runs at 3 knots, and the ebb at $3\frac{1}{2}$ knots. There is an eddy in the road at half-flood. Off the lighthouse and along the shore to Cook's Point the ebb stream at springs runs with such velocity as to form a violent race, which extends some distance off the shore, and northward of the lighthouse."

4. *Position of Proposed Port.*—From knowledge of the locality, and examination of charts, and evidence given in various reports, we consider that Tarbert is the only site on the Shannon suitable for a harbour fulfilling the requirements of the present enquiry.

Foynes has been spoken of, but its area is too small, and a rapid tide runs through it. At the same time Foynes has undoubted possibilities of development as a port for trading vessels of moderate dimensions.

Railway communication exists at present as far as Foynes, and could be easily extended 12 miles to Tarbert, skirting the south shore of the Shannon through easy country.

Tarbert would then be 39 miles from Limerick, and the distances by rail to various Irish ports would be as follows:—

From Tarbert:—

Dublin (Chascol Ferry)	-	-	-	-	168 miles.
Larne Harbour	-	-	-	-	264 do.
Rosslare Harbour	-	-	-	-	153 do.

Tarbert is not favourably situated as regards communication with Scotland and the north of England via Belfast. It has, however, via Limerick, communication with the Shannon navigation, and the Grand and Royal Canals.

5. *Naval Base and Commercial Port.*—As a naval base the Shannon does not appear to possess many advantages, and as a commercial port it is not so favourably situated as Galway. Limerick, distant about 33 miles, is the nearest commercial centre.

6. *Capacity for Development.*—Tarbert presents several drawbacks as regards development as a commercial port and trade centre.

To provide ground for the works at Tarbert very extensive reclamation would have to be made between Gorgan Point and Ballydonoghue Point in Tarbert Bay, and the harbour would have to be protected by a mole from the rapid tidal currents, and considerable maintenance dredging would probably have to be undertaken. Tarbert and the country round it do not offer much prospect of future development, and any development which might take place would be at the expense of Limerick.

The water-supply does not appear to be plentiful.

7. *Facilities for Stowage, Commercial, and Repairs.*—Coal and oil storage would have to be provided at Tarbert, although there is at present an oil depot at Foynes, which is, however, on a small scale. Supplies for commercialists would have to be brought from Limerick, the nearest market, and repairing facilities would have to be created. Tarbert does not present the same disadvantages, however, as regards inaccessibility and remoteness as Blackwood and Killybeg; and if a roping station was established, most of the repair work at present carried out at Limerick would probably be transferred to Tarbert.

Taking everything into account, the Shannon estuary does not appear to us to be suitable for the object in view, because:—

1. Tidal currents are strong;
2. It is very remote for traffic with the north of Ireland, Scotland, and the north of England.

BEREHAVEN (BANTRY BAY).

Berehaven has often been suggested as a transatlantic station, and with the object in view a line was actually surveyed to it by the Irish Railway Commission of 1837. Berehaven is situated in $9^{\circ} 44'$ west longitude.

The *Irish Coast Pilot* says (see p. 277):—

"Berehaven, between Bere Island and the mainland, is an excellent harbour, affording shelter for vessels of any size against all winds. It is spacious and easy of access, with good holding ground, and is an excellent rendezvous for a fleet."

1. *Depth and Area*.—For the purposes of modern vessels of deep draught and over 700 feet long, the area in the harbour, having a depth of over 8 fathoms, is rather limited and the harbour works would have to be situated near the eastern entrance.

It is high water, full and change, at Castletown, at 4h. 14m; springs rise $9\frac{1}{2}$ feet; neaps, $7\frac{1}{2}$ feet.

2. *Facility of Approach*.—The *Irish Coast Pilot* says (see p. 215).—

"Bantry Bay" immediately northward of Sheep Head, is easy of access, free from danger but such as common prudence will serve to avoid, and with scarcely any tidal stream. It is from 3 to 4 miles in width, and extends about 18 miles in an easterly direction, with depths gradually decreasing from 32 fathoms between Sheep Head and Bere Island, to 14 fathoms at its inner end, over a clean bottom of a tenacious description. It is, however, much exposed to the effects of westerly winds, but against these Berehaven on the north shore, Whiddy and Glengriff Harbours near the head of the bay, afford perfect security, and may be resorted to with safety and convenience by the largest ships."

The entrance to Bantry Bay is well defined, the land on both sides being mountainous, affording good day-marks.

There is a good light on the Bull Rock, off Derris Island, with a fog signal. Additional lighting and fog-signalling would have to be provided at the south side of the entrance.

3. *Shelter*.—No shelter from westerly gales is obtainable until under the lee of Bere Island, when vessels would be in complete shelter.

4. *Purities of Proposed Port*.—Berehaven is situated about 31 miles by road from Bantry; the distance by rail would be somewhat shorter. A new approach line could, however, be constructed along the coast to Kenmare, whence communication could be made via Mallow with Dublin, Belfast, Cork, Waterford, and Rosslare, also with Limerick and Galway.

5. *Naval Base and Commercial Port*.—Berehaven is already a naval base, for which purpose it is eminently suited; and doubtless, sooner or later, a railway must be constructed to it. As a commercial port it does not possess many advantages, as will be seen in the following paragraphs:—

6. *Capacity for Development*.—If other considerations are left out, Berehaven could undoubtedly be made available as a mail and passenger port by the construction of a railway to Kenmare, suitable for high-speed traffic to Belfast, Dublin, and Rosslare. Should a port of call only be aimed at, it has an advantage in its position, being on the route to English ports.

As, however, the object aimed at is to develop a commercial harbour, which can be availed of in time of war for the landing and safe transit across to England and Scotland of foodstuffs, &c., it will be found that Berehaven is not in a favourable position for such a harbour. Berehaven is remote from Belfast and Dublin, the two chief cities of Ireland, and from the main ports for cross-channel communication with England and Scotland. It is situated in a barren and desolate country, with little prospect of commercial development round it, the nearest large trade centre being Cork.

7. *Facilities for Bunkering, Commissioning, and Repairs*.—At present, although Berehaven is a naval base, there are no docking facilities for repairs, the nearest graving docks being at Queenstown, and unless a repairing yard and dock were provided at Berehaven vessels would have to proceed to other ports for docking. The Admiralty already possess a dockyard at Queenstown. There would be little or no local coasting repair work to keep a yard constantly employed, and it would be difficult to retain skilled labour. Coal and oil storage would have to be provided, and ships would have to be provisioned from Bantry or Kenmare, the nearest towns.

Berehaven, except as a port of call for mails and passengers, does not, therefore, seem to fulfil the present requirements of a western port.

QUEENSTOWN HARBOUR.

Although Queenstown cannot be considered as a western port, we feel bound to refer to it, as it has held the position of a port of call for the American mails for some seventy years.

The entrance to Cork harbour is in $8^{\circ} 10'$ west longitude.

The *Irish Coast Pilot* says (see pages 63, 64, 65).—

"Cork harbour, one of the most spacious and secure harbours in the British islands, is navigable for ships of large class from the entrance to Passage, a distance of $1\frac{1}{2}$ miles, and it contains space sufficient for the largest fleets to anchor in moderate depths of water, on good holding ground, and is most effectually sheltered against all winds and seas. It is, moreover, easy of access, and, from its westward geographical position, most valuable as a rendezvous both for His Majesty's ships and for the immense fleets engaged in commerce that continually resort here both for shelter and to await orders as to their final destination on their homeward voyages. Its spacious anchorages are usually much crowded, necessitating pilotage, to avoid collision."

1. *Depth and Area*.—"The depth of water in the navigable channel, from Roche Point at the entrance, to Man-of-War Head, 3 miles within, varies from 6 to 16 fathoms; from this to Passage, a distance of about $4\frac{1}{2}$ miles, there are depths of from $5\frac{1}{2}$ to 11 fathoms at low water.

"A comparatively small portion of the wide expanse inside the harbour is available for navigation, the greater part of it being occupied by shallows, between which the deep water channel runs in a north-east by north direction for about $2\frac{1}{2}$ miles to the shore of Great Island, where it bends abruptly to the westward, until it meets the River Lee a little above Hazelbowlne."

The area of water, over 8 fathoms in depth, is very limited, and the channel narrow in places.

There is a rock known as the Harbour rock in the middle of the entrance, having a depth of from 15 to 22 feet over it at low water. Further inside are the Turbot bank with 30 feet, and Doghouse bank with 17 to 18 feet of water over them at low water.

It is high water, full and change, at Queenstown at 5h. 1m; springs rise $11\frac{1}{2}$ feet; neaps, 9 feet.

2. *Facility of Approach*.—No difficulty will be found in approaching the entrance to Queenstown Harbour, which is well defined and marked by Daunt Rock lighthouse and Roche Point lighthouse, both of which have fog signals. There is also a fog siren on Power Head east of the entrance.

But the approach to Queenstown itself is through the anchorage ground, and entails risk in navigation in thick weather. Difficulty has been found in navigating the largest mail steamers into this harbour, and the port has practically ceased to be used as a port of call for such vessels.

3. *Shelter*.—There is perfect shelter for vessels when once inside the harbour.

4. *Position of Proposed Port*.—The only suitable site inside Queenstown Harbour for a transatlantic station seems to be off the town of Queenstown itself.

Queenstown is unfavourably situated as regards rail communication with Belfast and Scotland.

The distances by rail to various Irish ports are as follows:—

Dublin (Channel Ferry), 183 miles.
Larne Harbour 323 do.
Rosslare Harbour 147 do.

5. *Naval Base and Commercial Port*.—Queenstown is already a naval base. As a commercial port the site is on the whole favourable, being in proximity to Cork.

6. *Capacity for Development*.—Were it possible to establish a large commercial port at Queenstown, there is no doubt that it would be very likely to develop, as there is a rich country behind it. Cork, moreover, is a large and improving trade centre, and at the present time developments are in progress to revive the ship-building and repairing industry in this town.

In 1914 an inquiry was instituted by the Postmaster-General in reference to the objections made by the Cunard Company to their large steamers, such as the *Lusitania* and *Mauretania*, using Queenstown Harbour as a port of call. Evidence was given by Rear-Admiral Herbert, R. P. Cuss, C.B., Admiralty Hydrographer, and Captain A. H. E. Young, the Professional Adviser of the Marine Departments of the Board of Trade, on the subject. Their evidence was adverse to the use of the Harbour by the largest vessels engaged in the transatlantic mail and passenger service.

7. *Facility for Bunkering, Commissariat, and Repairs*.—As regards bunkering, commissariat, and repairs, ample facilities at present exist at Queenstown.

CONCLUSIONS.

We have endeavoured to give an impartial description of the various sites which have from time to time been proposed for the western port, and have largely drawn from the official Admiralty sailing directions. We have also considered the relative advantages of these sites under the heads:—(1) depth and area; (2) facility of approach; (3) shelter; (4) position of the proposed port; (5) naval and commercial base; (6) capacity for development; (7) facilities for bunkering, commissariat, and repairs.

It is here made the conclusion that if efficient artificial sheltering breakwaters are constructed, Galway Bay affords the best site for the proposed port.

However, the breakwaters which must be constructed there to give the necessary shelter would be so very extensive and costly, that we are of opinion that the merits of Killary Bay should be very carefully weighed.

At Killary Bay no artificial shelter is required, the site of the proposed works being completely landlocked. This would allow the expenditure to be limited to the provision of berthing, port equipment, the lighting and fog-signalling of the sea approaches and channel, together with the railway connection with the Midland Great Western Railway at Recce.

The balancing of the relative advantages of Galway Bay and Killary Bay, from the navigation point of view and the relative expenditure to be incurred, will require the most careful and unbiased consideration.

March, 1918.

JOHN PURSER GRIFFITH.

JOHN W. GRIFFITH.

(B) A WESTERN PORT FOR IRELAND.

In our paper on the Western Harbours of Ireland, entitled, "An Enquiry into the suitability of various Bays and Estuaries on the West Coast of Ireland for the formation of a Commercial Port and Naval Base," we say (see above):—

"We have come to the conclusion that, if efficient artificial sheltering breakwaters are constructed, Galway Bay affords the best site for the proposed port."

We now propose to describe the works which we consider necessary, and the position in which we consider the harbour should be constructed. The general design of the harbour, and its position on the north shore of Galway Bay, are shown on the accompanying plan.* We have carefully examined the coast, and have satisfied ourselves that the position chosen between Spiddal and Barna is the most suitable. All the early schemes for a Transatlantic mail station at Galway have aimed at forming it as close to Galway City as possible, but as the size of vessels engaged in this trade has increased, it has become necessary to move further and further away from Galway. The earliest proposals centred around Mutton Island, and the more recent proposals in the neighbourhood of Barna. Most of these schemes aimed at the construction of a combined breakwater and landing pier. We have studied all these proposals most carefully, and read the evidence given in support of them, and have been driven to the conclusion that none of the schemes hitherto proposed would provide the needed accommodation for the vessels now engaged in this trade, either for depth of water or room to manoeuvre.

The size of the present-day Atlantic liners requires that a port for their accommodation should have ample room for anchorage as well as berthing where vessels drawing from 35 to 40 feet of water can enter or leave at all states of tide.

To meet these requirements we have designed the proposed harbour so as to include a large area of deep water and ample deep-water berthing; and at the same time so as to afford facilities for future extension and development.

* Plan not reproduced here.

The earliest stages of the work would be the construction of two breakwaters. The first, a western arm extending from the shore for a length of 3,000 feet in a southward direction, and then in a south-eastward direction for a further length of 3,000 feet. The second, an island breakwater, 4,000 feet in length, parallel to the shore, leaving a navigable entrance 1,000 feet wide between it and the western breakwater. To the eastward a wide entrance is left between the island breakwater and the shore or the shipping pier. This would allow of the safe and easy entrance of the largest vessels in all weathers.

Under the shelter of this harbour it is proposed to form an inner harbour, ultimately intended for an Atlantic fishing station, which would afford accommodation for the largest class of fishing vessels of all times, and also provide facilities for the equipment necessary for a first-class fishing station, including markets, curing stations, ice factory, cold storage, utilisation of refuse and by-products, together with coaling and repairing facilities.

PROPOSED NATIONAL HARBOUR IN GALWAY BAY.

We have selected what we deem to be the nearest possible site to the City of Galway for the Harbour. This site is about six miles westward of Galway on the north shore of the bay about two miles west of Barna Quay. Since 1851 various sites eastward of this have from time to time been proposed, and we have examined the plans of these schemes. All of the proposed harbours are deficient in depth and area, bearing in mind the draught and size of modern vessels. Furthermore, they are all deficient in deep-water berths, some of them providing for only one passenger ship, no provision being made for general trade. The designs which we have examined all contemplate a combined breakwater and pier, *i.e.*, the inner face of the breakwater to be used as quay. We consider such a design is entirely unsuitable and inadequate for the requirements of a terminal port.

We find also that the sites eastward of the position we have selected are very deficient in the sea-room required for the largest modern vessels. We attach great importance to this, as it is on this very point that both Queenstown and Fishguard have been condemned as even ports of call by the highest marine authorities for the large class of steamers at present engaged in the Atlantic trade.

We have in our previous pamphlet, "An Enquiry into the suitability of various Bays and Estuaries on the West Coast of Ireland for the formation of a Commercial Port and Naval Base," considered Galway Bay under the following heads:—

- | | |
|--------------------------------|--|
| (1) Depth and Area. | (5) Naval Base and Commercial Port. |
| (2) Facility of Approach. | (6) Capacity for Development. |
| (3) Shelter. | (7) Facilities for Bunkering, Commissariat, and Repairs. |
| (4) Position of Proposed Port. | |

We propose now to investigate in more detail the suitability of Galway Bay, and to describe the works, equipment, *etc.*, which we consider necessary for the establishment of a first-class terminal port.

The site which we propose is, as before stated, situated on the north shore of Galway Bay in latitude $53^{\circ} 14' N$ and longitude $9^{\circ} 12' W$.

The design generally consists of a western breakwater and island breakwater. The western breakwater runs out from the shore for a total distance of about 6,000 feet in two parts. The first part runs from the shore in a true southerly direction for a distance of 3,000 feet. The second part runs in a direction south 18° degrees east for a further distance of 3,000 feet. The island breakwater will be constructed parallel to the shore at a distance from it of about 5,000 feet. This breakwater will be 4,000 feet long, founded in about 60 feet of water, and there will be an entrance 1,000 feet wide between it and the western breakwater. The harbour thus enclosed will be open towards the east, in sheltered water. Under the shelter of these breakwaters a reclamation will be made, the outer edge of which will run east and west, at a distance from the shore varying from 600 to 1,000 feet, and roughly extending to the five-fathom line. From this reclamation spur jetties or tongues will be run out from north to south for a distance of 1,500 feet, with berths alongside of from 30 to 50 feet at L.W. The west quay of the westernmost jetty will be 1,200 feet from the western breakwater. We have provided in the design for six such jetties, giving a total quayside (without counting pier-heads) of about 20,000 feet.

This describes roughly the completed design, but it will be seen later that we propose in the first instance only to proceed with a portion of the work, allowing for further extensions to be made as the need may arise. The total water area of the proposed harbour when complete will be 537 statute acres, and the distance from the island breakwater to the end of the jetties will be 3,600 feet, allowing ample room for swinging and berthing of the largest ships in perfect shelter.

Railway Connection.—One great advantage which the proposed scheme possesses over all other suggested sites for a western harbour is that only a short railway will have to be constructed to connect it with the Midland Great Western Railway at Galway. In the case of Blackrock Bay the length of the new railway necessary would be 88 miles; Killbeg, 10 miles; Tarbert, 12 miles; and Benbowen, about 30 miles.

At present a branch line into Shanahan granite quarries leaves the Galway and Clifden Railway at Newmarket on the west side of the Carrig Bridge. An extension of this branch of about 5½ miles through very easy country is all that is required. The construction of this short line should be one of the first works undertaken, in order that it might be available for use in connection with the construction of the harbour works.

Breakwater.—The breakwater will be of the rubble mound type, with a concrete superstructure. The mound will be brought up to the level of low water, and the superstructure founded on it.

The seaward slope of the mound will be 2 to 1, protected by 30-ton concrete blocks tipped pell-mell on its surface. The top of the mound will have a width of 50 feet, and the inner slope will be 1 to 1. The concrete superstructure will consist of blockwork, and will be rectangular in section, the dimensions being about 30 feet high by 30 feet wide.

The superstructure will be founded about 5 feet below the top of the mound, leaving a berm of 30 feet on the seaward side, and 10 feet on the harbour side.

Block-lying Trian cranes, running on top of the finished superstructure, will probably be used both for the construction of the superstructure itself and depositing the outside protection blocks.

It will be possible to deposit the greater part of these mounds from hoppers loaded at a jetty and moved out to the site of the breakwater.

There is an unlimited quantity of granite available in the high ground immediately behind the works suitable for the construction of the mounds and for the purpose of concrete.

Reclamation.—In order to provide sufficient space for railway siding accommodation, engine sheds, oil and coal depots, and various terminal buildings and offices, it will be necessary to reclaim an area of about 140 acres on the foreshore. This acreage is the total area to be reclaimed for the finished design; but in the first instance we only propose to reclaim about 82 acres. The finished reclamation will extend from high-water mark to a pitched slope or to quay walls bounding the north side of the harbour at the shore ends of the jetties.

It is not proposed to construct these quay walls at the north side of the harbour in the first instance, but to deposit a rubble revetment about 200 feet shorewards of the line of the future quay walls. Behind this revetment sand will be pumped ashore from a suction dredger to a finished level of about 10 feet over high water.

The sand for this filling can, we believe, be dredged off the entrance to the Corrib River and Galway Docks, and this dredging will prove of undoubted benefit to the inner roadstead and approaches to the existing Galway Docks.

Berthage.—The plan which we have adopted for berthage is what is known as the spur, or tongue system. This is the system now almost universally adopted in modern ports, as it is convenient to work, and is the most economical as regards utilization of the available water-space. The completed design has six tongues, each 1,500 feet in length, and 400 feet in breadth. These project from the shore reclamation into the harbour in a direction due south, and a water-space of 600 feet in width will be allowed for between them when completed.

The total length of quays in the completed design will be about 20,000 feet.

Sheds.—On these jetties double-story sheds will be built for dealing with cargo. Each shed will be about 1,500 feet long by 120 feet wide.

The sheds will be placed 60 feet back from the quay face, leaving space for travelling portal cranes and railway lines. On one of the jetties a passenger station will be built.

Equipment.—It is essential that the proposed harbour should be equipped with the most modern cargo handling and labour-aiding appliances for the rapid discharge, loading, and bunkering of vessels. In addition, graving-dock accommodation should be provided capable of docking the largest vessels.

Grain silos must be built to deal with large cargoes of wheat, maize, &c.; and if this were done Galway should become an important distributing centre for Ireland and the west coast of Great Britain.

Ample oil storage must be provided, not only for the purpose of bunkering the mail boats, which will most probably be oil fired, but also for dealing with the general oil trade of the country. Coal storage is also allowed for.

It has been pointed out to us that it would be desirable to include in this scheme for a western port the equipment for an Atlantic fishing station. We have, therefore, reserved a portion of the proposed harbour as the site for a basin or inner harbour devoted to this industry. Ample facilities would be provided for the erection of a fish market, curing station, cold storage, and ice factory, and also the provision of a slip or pontoon dock, suitable for the repairs of a fishing fleet.

Electric Power.—Galway possesses in its neighbourhood considerable sources of water-power, which should be availed of both for the construction of the harbour and for its working when open. At Galway the fall of the River Corrib is already used by various mills, but hitherto in small and inefficient installations, and we are informed that 10 feet is the full fall hitherto consumed.

Several water-power rights exist which would have to be purchased if the power available at Galway City were utilized, and equivalent electric power supplied to the existing mills and industries. For this reason we are in favour, subject to detailed investigation, of utilizing the fall of about 86 feet between Lough Mask and Lough Corrib at Cong.

It is probable that the bed of the desilting canal between Lough Mask and Lough Corrib could be made use of either for the construction of a water-tight conduit, or for laying a pipe-line therein. Should this be found feasible, there is probably ample power at Cong for the generation of electricity, both for working the harbour and for driving modern corn mills, &c., in the neighbourhood of the new harbour. The power would be transmitted to the new harbour by an overhead line from Cong, a distance of about 28 miles. We consider that the existence of this water-power is a most important point in favour of Galway Bay as a western terminal port.

Water Supply.—A good water supply is available at Lough Inch, situated at a level of 163 feet over low water, immediately behind the site of the works. The pipe-line from this lake would be about 2½ miles in length. If necessary, the level of Lough Inch could be raised, and additional storage provided.

August, 1918.

JOHN P. GREFFITH,
JOHN W. GREFFITH,

(c)—A STATEMENT of the question of the connection between Inland Navigation and the Ports of Ireland, by Sir John Purser Grylls, M.A., M.Inst.C.E., made at the request of the Sub-committee on Inland Transport in Ireland.

In the course of my examination by the Committee on the 9th of September, 1918, I was asked to "prepare a statement on the question of the connection between inland navigation and the ports."

In attempting to do so, I must necessarily be guided by the investigations of, and the information collected by, the Royal Commission on Canals and Waterways under the Chairmanship of Lord Shuttleworth. The Commission consisted of nineteen members, and was appointed by Royal Warrant on the 5th of March, 1906, and issued its final Report on the Canals and Inland Navigations of Ireland on the 31st of March, 1911. Five years were spent on the investigation and consideration of the complex and difficult problem submitted to us. All the Commissioners lived to see their labours close, and the Irish Report, which was separate and distinct from that on the English and Scotch Canals and Waterways,

was the last work on which the Commission was engaged. It was signed by eighteen out of the nineteen Commissioners. The only Commissioner who did not sign the Report was Lord Parker. His reasons for not signing are given in his own words as follows:—

"I do not sign the Report, not because I question the value of the inquiry, but because I do not agree with the policy of recommending any further administrative changes in Ireland involving a charge on the public purse, and possibly the Boards of Management, unless and until a purely Irish elected authority has agreed to pay for them. I take this view because I am alarmed at the growth of public expenditure in Ireland, which in my opinion will not be checked unless the people who benefit have themselves to pay for public improvements."

Under these circumstances I feel justified in saying that the Royal Commission made practically a unanimous Report on the Canals and Inland Navigations of Ireland. This Report contains the considered views of men holding divergent political and economic opinions, many of them with wide experience of transport problems.

I therefore with confidence recommend the Report to the careful consideration of the Committee.

The Report is divided into nine parts.

Part 1. Gives details of the previous enquiries.

Part 2. Summarises the inquiries of previous Commissions on drainage and navigation in Ireland.

Part 3. Gives the expenditure on Irish waterways.

Part 4. Describes the Irish waterways.

Part 5. Gives the history and present conditions of Irish waterways.

Part 6. States the causes which have operated to prevent the carrying out of improvements by private enterprise, and whether such causes are removable by legislation.

Part 7. Discusses whether any, and if so what extensions or improvements of Irish waterways should be made.

Part 8. Gives the conclusions and recommendations.

Part 9. States the recommendation as to the form of control.

The Committee will therefore understand that I can add but little to the information contained in this Report. I can only attempt to point out some matters which bear specially upon the present inquiry.

A reference to the map of Ireland will show that the connection between inland navigation and the ports of Ireland is extensive, and it will be seen what an important part inland navigation might play in Ireland in the transport of raw material and merchandise between the ports and inland centres, if fostered by judicious treatment and economic control.

The following Irish Ports are connected by waterways with the interior and the inland towns mentioned.

The Port of Dublin is in direct connection with the Grand Canal, which with its main line and branches has a total length of 300 miles. It connects Dublin by water with the River Shannon and the River Barrow. The Port of Dublin is also connected with the River Shannon by the Royal Canal, constructed out of spite to the Grand Canal management, and now owned by the Midland Great Western Railway, which runs along the canal bank from Dublin to Mullingar.

The Port of Drogheda is in connection with the Boyne navigation, which extends from the town of Drogheda to Navan, a distance of nineteen miles.

The Port of Newry is on the Newry navigation, which extends from Warrenpoint to Whitecoat Point, a distance of twenty-five miles, and thence by the Upper Bann navigation to Lough Neagh.

The Port of Belfast has water communication with Lough Neagh by the Lagan Canal and through the Lake to the Upper and Lower Bann navigation. The Ulster Canal, which joins the Upper Bann navigation, connects Belfast by water with "a very industrious and prosperous agricultural country."

The Port of Coleraine is connected with Lough Neagh by the Lower Bann navigation.

The Port of Londonderry is connected with Strabane by the Strabane Canal and the Foyle navigation.

The Port of Galway is on the River Corrib, and the Lough Corrib navigation extends from the City of Galway to the town of Coag.

The Port of Limerick is on the Shannon, and is connected with Lough Derg for navigation purposes by the Limerick Canal. From Lough Derg it has water connection with Dublin.

The Port of Youghal is connected with Cappoquin by the Blackwater navigation.

The Port of Waterford is connected with Carrick and Clonmel by the River Suir navigation, and by the River Barrow it is connected with the Grand Canal system.

The Port of Wexford is on the Slaney, by which there is water connection with Baniscolthy.

It will thus be seen that Ireland possesses an extensive system of waterways. They have a total length of 837 miles, and a capital sum of £4,875,498 has been spent on their construction. They may be divided into two systems, the Northern and the Southern. The two systems are at present distinct, but could be united at a moderate cost by the completion of the unfinished Ballynmore and Ballyconnell Canal.

The Royal Commission reported that it was desirable that the canals and waterways should be maintained, but that no very expensive additions were at present necessary.

They recommended certain minor works to be carried out, amongst which were the following:—

1. The improvement of certain locks to a maximum standard.

2. Maintenance of waterways, including dredging, and the provision of certain necessary accommodation for tugs.

3. An improvement of the water supply on certain canals.

4. The substitution of movable for fixed weirs where flooding takes place.

5. Certain outlays in the interest of drainage.

The traffic on the Irish canals and waterways consists of porter, malt, flour, broadstuffs, grain, potatoes, sugar, live stock (chiefly pigs), general merchandise, coal, peat, artificial manure and heavy goods, sands, gravel, timber, and building materials.

In making a comparison between English waterways and those in Ireland, it is necessary to bear in mind how comparatively small the entire traffic, whether by land or water, is in Ireland as compared with that of England and Wales. The difference of density in the population in the two countries is sufficient to account for this. Agriculture is the principal industry, with the exception of shipbuilding and linen in the North, and alcoholic drinks in Dublin. The output of coal and minerals in Ireland is infinitesimal when

compared with that of England. There are not in Ireland any inland manufacturing or large mining districts exchanging traffic with each other, or with the seaports. Such goods as there are for export, import, or internal trade are almost entirely of the nature of live stock, butter, eggs, and other agricultural produce or light goods requiring high speed delivery. In England the waterways through the agricultural districts are the least successful; but it is worthy of note that the Irish waterways, though chiefly serving an agricultural country, are in comparison, more successful. We cannot shut our eyes to the increasing prosperity of Ireland, and to the great extension of her tillage. Such prosperity must set and rest on the railways and waterways of the country. With judicious management I believe the future of these must be good for Ireland.

With unity of control and skilful management the railways and waterways of Ireland will, I believe, prove mutually helpful; but this cannot be done on economic lines if they are worked merely as competitors. We have evidence that the English railways, in their endeavour to stifle waterway traffic, carry an immense volume of coal and mineral traffic at unremunerative rates. I would refer to a paper which I read at the meeting of the British Association held in Birmingham in September, 1913, which dealt with this subject, and is entitled:—

"Some Reasons why the State should improve the Canals and Waterways of the United Kingdom."

It is an attempt to show that the mineral traffic has been a potent factor in reducing the earnings of some of our railways, and that where it is possible to divert a portion of the mineral or low-class traffic from rails to water, it might permit our railways to be devoted to the carriage of better-paying traffic, and of a better return being realised on our railway capital. My conviction is that there is room enough for both railways and waterways in the country, but that it is essential that both should be used to the best advantage.

Ireland has one advantage over England, namely, that there is only one railway-owned canal in Ireland, but we cannot boast that none of the others are under railway control. The agreement between the Grand Canal and the Great Southern and Western Railway referred to in the Royal Commission's Report, is an indication of this.

The Irish waterways have as a rule ample water supply, but problems connected with their efficient working, maintenance, and improvement are wrapped up with questions of drainage, milling, and fishing rights. The working efficiency of the canal systems in general is materially reduced by what can only be termed whimsical differences in the gauge of the locks.

When considering the question of the form of control for the waterways of Ireland the Royal Commission was face to face with the conflicting interests of drainage, fishing, and milling rights. In paragraph 306 of their Report the Commissioners say:—

"Much of the failure that has followed the treatment of rivers and waterways in Ireland has been due to the attempt to deal with these problems separately. We, therefore, believe that the only hope for successful treatment of the problems connected with drainage and inland navigation in Ireland depends upon their being under the control of some central authority possessing technical knowledge and having full power to deal with them."

It was for these reasons the Commission recommended the formation of a "Water Board" for Ireland which should be a branch of the Department of Agriculture.

I believe such a "Water Board" would be of great advantage to Ireland by unifying the control and management of the waterways and the arterial drainage of the country.

24th September, 1918.

JOHN P. GRIFFITH.

APPENDIX NO. II.

LISTS of Marine Works handed in by Mr. W. L. Micks, Congested Districts Board, during his Examination on 8th September, 1918.

CONGESTED DISTRICTS BOARD.

SCHEDULE OF FIERS undertaken between the date of the formation of the Board and the 31st March, 1909.

No.	NAME of Work.	DESCRIPTION of Work.	Total Expenditure to 31st March, 1908.	Expenditure for 1908-9.	Total Expenditure to 31st March, 1909.	Observations.
	L.—MARINE WORKS		£	£	£	
	Droghda.					
1	Magheraorty	Landing Place	521	—	521	Completed.
2	"	Landing Place, Repairs	315	—	315	do.
3	Magheragallon	"	345	—	345	do.
4	Orlinscote	"	148	13	161	do.
5	"	Sea Wall, &c.	365	—	365	do.
6	Loughrea	Blasting of rocks	100	—	100	do.
7	Clonmoneagh	Pier	1,001	—	1,001	do.
8	"	"	150	—	150	Contribution *
9	Port Inver	Boatwharf and Breakwater (Improvements.)	428	—	428	Completed.
10	Enniscree	Landing Place	38	—	38	do.
11	Rothland Island	Landing Stage	16	—	16	do.
12	Tray Island	Landing Place	1,088	—	1,088	do.
13	Barton Port	Pier (extension)	139	—	139	do.
14	"	(Improvements)	43	—	43	do.

* Contribution under the Marine Works Act.

SCHEDULE OF PIER—Continued

No.	Name of Work	Description of Work.	Total Expenditure to 31st March, 1908.	Expenditure for 1908-9.	Total Expenditure to 31st March, 1909.	Observations
<i>Marine Works—contd.</i>						
DUBLIN—contd.			£	£	£	
15	Killybegs	Pier	2,400	—	2,400	Contribution to Board of Works and Harbour Commissioners.
16	Gpha Island	Landing Place	325	—	325	Completed.
17	Wyon Point	Light	355	—	355	Completed.
18	Dunhaughey	Channel	75	—	75	Further vote.
19	Whiteport (Longhues)	Ship	500	16	516	Completed.
20	Portlaoine Harbour	Constructing Pier and Breakwater	512	—	512	
21	"	" (Repairs)	183	14	197	do
22	Illan Corra	Constructing Sea Wall	90	—	90	do
23	Trelin Lights	Erecting 2 Lanterns	10	—	10	do
24	Fallmore	Ship	170	—	170	do
25	Owey Island	Erecting Landing Place	65	—	65	do
26	Ballyness	Removal of Wreck	113	—	113	do
27	Ballyness	Extension of Pier	775	—	775	do
28	Poolowaddy	Improving Landing Place	90	12	102	do
29	Falshernh	"	80	—	80	do
30	Loughros Point	Repairs to Ship	18	—	18	do
31	Roebeg	Boatlip	679	1	680	do
32	Toslin Harbour	Closing Berthage	903	—	903	do
33	Glenahmish	Landing Place	232	—	232	do
34	Roebeg	Lights	12	—	12	do
35	Loughros Point	"	2	—	2	do
36	Roanagh Pier	"	145	—	145	Contribution.
37	Downings Bay Pier	"	450	—	450	do *
38	Gortnascate	Pier	370	—	370	do *
39	Portnoo	"	200	—	200	do *
40	Portnabla	Pier—Fendering, &c.	200	—	200	do
41	Roehine (Coshlagh)	Light	24	114	138	Dropped †
42	Yellow Banks (Achary)	Quay	82	2	84	Completed.
43	Carrick	Ship	183	—	183	do
44	Lahan Isld. (Castleport)	Quay	120	—	120	Contribution.
45	Ballyetherland	Ship	294	—	294	do
			200	29	229	do
1	Ballyconnell Works	Clearing away stones	141	—	141	Completed.
2	Enishmorey	Landing Place	145	—	145	do
3	Mullaghmore Harbour	Improvements and Repairs	348	—	348	do
4	Knocklone	Ship	200	—	200	do
<i>MAYO.</i>						
1	Porturia	Boatlip, Breakwater and Landing Place	1,176	—	1,176	do
2	"	Sea Wall	143	—	143	do
3	"	Removal of Rocks	3	—	3	do
4	Porturia Pier	Repairs	71	—	71	do
5	Doagh	Landing Place	225	13	238	Suspended.
6	Portlaoine	Boatlip, Breakwater and Landing Place	1,179	—	1,179	Completed.
7	"	Approach Road	40	—	40	do
8	Inver	Landing Stage	123	—	123	do
9	"	" Repairs	84	11	95	do
10	Mungormona	Landing Stage	802	—	802	do
11	Carran (Achill)	Landing Place	341	110	451	do
12	Campert	Boatlip and Repairs	1,060	—	1,060	do
13	Ballyglass	Boatlip	297	3	300	do
14	Kesh (Achill) Harbour	Improving Harbour	1,849	—	1,849	do
15	Kildavnet	Repairs to Ship	65	—	65	do
16	Inishkeel	Landing Place Approach	25	—	25	do
17	Binnacurry	Erecting Pier (half total cost)	40	—	40	do
18	Dugort	Erecting Pier	1,322	55	1,377	do
19	Rinnos	Erecting Landing Place	103	—	103	do
20	Terrage Bay	"	1,184	114	1,298	do
21	Valley Pier	"	8	—	8	do

* Contribution under the Marine Works Act. † Credits exceeded expenditure by amount specified.
 ‡ Expenditure on timber to be transferred elsewhere. § Cash Credit.

SCHEDULE OF PIER—continued.

No.	Name of Work.	Description of Work.	Total Expenditure to 31st March, 1906.	Expenditure for 1906.	Total Expenditure to 31st March, 1907.	Observations.
<i>Marine Works—contd.</i>						
<i>MAYO—contd.</i>			£	£	£	
22	Darby's Point	Leading Lights	7	—	7	Completed.
23	Porturine	Pier and Approach Road	104	—	104	do.
24	Corn Hill Pier	Repairs	4	—	4	Contribution.
25	Darby's Point Pier	Extension	312	—	312	Completed.
26	Asagh (Achill)	Landing Place (Improvement)	5	—	5	do.
<i>GALWAY.</i>						
1	Inishkeeffe	Landing Place	57	—	57	do.
2	"	Sea Wall	30	25	55	Contribution.
3	Inishack	Landing Place	342	4	346	In progress.
4	Roundhill	Pier	625	—	625	Completed.
5	Aughranore	Landing Place	345	—	345	do.
6	"	Pier Repairs	37	—	37	do.
7	Clifden	Beacons and Buoy	203	—	203	do.
8	Kilkeera	Dredging	55	—	55	do.
9	Deeryara	Pier and Beacons	226	—	226	do.
10	Trillick (S. Aran)	Breakwater	415	—	415	do.
11	Lough Corrib Pier	"	228	—	228	do.
12	Cloggan Pier	"	240	—	240	do.
13	"	Repairs	112	—	112	Contribution.*
14	Kilronan Pier	"	245	—	245	Contribution.
15	Cashel	Improvements to existing Pier	140	—	140	do.*
16	Kilmurphy	Repairs to Pier	13	—	13	Contribution to County.
17	"	Landing Place and Approach	245	—	245	Completed.
18	"	Connecting Pier and Causeway	21	—	21	do.
19	Kilronan	Dredging	91	—	91	do.
20	"	Extension of Pier	1,000	—	1,000	Contribution.
21	" Pier	New Shed	1,367	79	1,367	In progress.
22	"	Harbour Light, No. 1	67	—	67	Completed.
23	"	Harbour Light, No. 2	59	—	59	do.
24	"	Light	112	—	112	do.
25	"	Repairs	62	—	62	do.
26	Inishmaan	Boat slip	708	—	708	Completed and under Co. Council.
27	Killary	Harbour Marks	430	—	430	Completed.
28	Cloggan	Harbour (Improvement)	622	—	622	do.
29	Deerynagall	Erecting Landing Place	96	—	96	do.
30	Roundstone Pier	Removal of Rocks	19	—	19	do.
31	"	"	230	—	230	Contribution.*
32	Maes	Erecting Pier and Approach	2,216	—	2,216	Completed.
33	Doonoughan	Landing Place and Approach Road	370	4	374	do.
34	Kiggan	Improving Landing Place	38	—	38	do.
35	Feenish Island	Pier	105	—	105	do.
36	Lyon Head	Light	131	—	131	do.
37	Cloggan Head	"	146	—	146	do.
38	Deer Island	"	416	—	416	do.
39	South Aran	Closing Strand, &c.	327	—	327	do.
40	Cloggan Pier	Shed	98	—	98	Suspended.
41	Kilronan Harbour Works	Mooring Rings, &c.	3	74	77	Completed.
42	Carrara	Ship	7	—	7	—
43	Pollanack	Ship	—	138	138	—
<i>KERRY.</i>						
1	Meenaghane	Landing Place and Breakwater	1,369	—	1,369	Completed.
2	"	Repairs to Landing Place	10	—	10	do.
3	Beech	Quay	1,173	—	1,173	do.
4	"	Mooring Buoy	93	—	93	do.
5	"	Approach Road	50	—	50	do.
6	Beandon Creek	Landing Place	921	—	921	do.
7	"	Approach Road	144	—	144	do.
8	"	Protection Wall	389	—	389	do.
9	"	Removal of Rocks	97	—	97	do.
10	"	Pier	124	—	124	do.
11	" Pier	Light	48	—	48	do.
12	Glacabeg	Removal of Rocks	95	—	95	do.

* Contribution under the Marine Works Act.

† Credits exceeded Expenditure by amount specified.

SCHEDULE OF PIERS—Continued

No.	Name of Work.	Description of Work	Total Expenditure to 31st March, 1908.	Expenditure to 1908-9.	Total Expenditure to 31st March, 1909.	Observations.
<i>Marine Works—contd.</i>						
KERRY—contd.			£	£	£	
13	Blacket Island	Pier and Breakwater	384	—	384	Completed.
14	Glebe and Tellig	Small Quay	489	—	489	do
15	Bakegem	Pier	467	19	486	do
16	Coomakilla	Loading Place and Road	87	—	87	do.
17	Lehm Harbour	—	100	—	100	Contribution.
18	Darconatschan	Breakwater	25	—	25	do.
19	Cootanna	Pier and Slip	3,679	—	3,679	Completed.
20	"	Addition to Pier, &c.	886	2	888	—
21	Cootanna Pier	Light	—	7	7	—
22	"	Wharf	—	20	20	Completed.
23	Travaginsan	Breakwater and Slip	1,302	—	1,302	do.
24	"	Repairs	109	9	109	do.
25	Glen Boat Cove	Quay, Slip and Approach	1,535	—	1,535	do.
26	Deeryane	Loading-place and Bridge	242	—	242	do.
27	"	Beacons and Leading Marks	220	—	220	do.
28	West Cove	Quay and Beacons	750	—	750	do.
29	"	Repairs to do	52	—	52	do.
30	"	Additional Beacons	42	—	42	do.
31	Scruggane	Pier and Boatlip	1,440	—	1,440	do.
32	Coomore Harbour	Improving Loading Place	34	—	34	do.
33	Takilla	Quay	300	—	300	Contribution to County.
34	Killorphan	Boat Slip	302	—	302	Completed.
35	Rheen and Leher Landing Places	Removing Rocks	15	—	15	do.
36	Croshenkey	—	270	—	270	do.
37	Coomalunghay	Loading Place	68	—	68	do.
38	Garrane	Boat Slip	70	—	70	do.
39	"	Pier	10	—	10	Contribution.
40	Althammore (Follon-ation)	Loading Place	280	43	287	In progress.
41	Drumry	Boat Slip	902	—	902	Completed.
42	Roads	Extension of Slip (New Work)	1,015	—	1,015	do.
43	Roads Slip	—	—	190	190	—
44	Dingle Harbour	Dredging	500	—	500	Contribution
45	Ballinamag	Pier	40	—	40	do.
46	Steevick	Pier	175	—	175	do.
47	Renard Point	Pier	—	220	220	do.*
48	Coastorinth	Steps	21	—	21	Completed.
CONN.						
1	Mucra	Loading Place and Road	289	—	289	do.
2	Castle Island	Quay	150	12	162	Contribution to County.
3	Trillick	Slip	329	120	329	Completed.
4	Pollydoogan	Slip	434	—	434	Work suspended.
5	Loughane	Loading Place	123	2	125	In progress.
6	Caherkeen	Pier	706	—	706	Completed.
7	"	Pier extension	369	124	374	In progress.
8	Gortdun	Boatlip	232	—	232	Completed.
9	Glumroe	—	268	6	274	do.
10	"	Extension to Pier, &c.	146	—	146	do.
11	"	Approach to Slip	27	—	27	do.
12	Bere Island	Pier and Approach	1,123	—	1,123	do.
13	Gauish	Boatlip and Retaining Wall	613	—	613	do.
14	Trillick	Boatlip	228	—	228	do.
15	"	Parapet Wall	45	—	45	do.
16	"	Repairs to Pier and Boatlip	190	—	190	do.
17	Rooston Cove	Loading Place	27	—	27	Contribution.
18	Dunmurry Pier	Extension	30	—	30	do.
19	Adrigole Pier	—	1,234	120	1,234	Completed.
20	Courtmacsherry	Pier	509	—	509	Contribution.
21	Killeshine Point Works	—	83	—	83	Completed.

* Contribution under the Marine Works Act.

† Credits exceeded Expenditure by amount specified.

SCHEDULE OF FINES—Continued.

No	Name of Work	Description of Work	Total Expenditure to 31st March, 1906.	Expenditure for 1906-7	Total Expenditure to 31st March, 1906.	Observations.
<i>Marine Works—contd.</i>						
<i>CORK—contd.</i>						
22	Dharrigree - - -	Slip - - - -	2	£	£	
23	Inishmord - - -	Leading Place - - -	36	—	36	Completed.
24	Cage Clear - - -	Pier - - - -	50	—	50	do.
25	Gortavally - - -	Construction of Slip - - -	282	—	282	Contribution* Completed.
26	- - - - -	Improvements to Pier - - -	165	—	165	do.
27	Camlough - - -	Leading Place - - -	47	—	47	Contribution to County.
28	Schall - - - -	Extension of Pier - - -	609	—	609	do.
29	Glangriff Sand Quay - - -	Rebuilding Quay - - -	145	—	145	Completed.
30	Gortahig - - -	Construction of Pier - - -	100	—	100	Contribution to County.
31	Toor - - - -	Slip - - - -	594	4	598	Completed. Further vote.
32	Toor - - - -	Approach Road to Slip - - -	60	—	60	Completed.
33	Canty's Cove - - -	Slip and Approach - - -	505	—	505	do.
34	Ardgroom Harbour - - -	Erection of Beacons - - -	156	—	156	do.
35	- - - - -	Sea Wall - - - -	20	—	20	Contribution to County.
36	Castletown Bere - - -	Extension of Pier - - -	694	—	694	do.
37	Dooneen - - - -	Pier - - - -	1,118	—	1,118	Completed.
38	Goleen - - - -	Quay (Pier and Road) - - -	9	345	354	do.
39	Furkell - - - -	Post Slip - - - -	125	—	125	Contribution to County.
40	Whitelane - - -	Leading Place - - -	135	9	144	Completed.
41	Droevy Island - - -	Slip - - - -	324	14	338	do.
42	Trethead - - - -	- - - - -	416	156	572	In progress.
43	Glongriff - - - -	Pier - - - -	1,126	213	1,339	Completed.
44	Ardgroom River - - -	Beck - - - -	4	—	4	do.
45	Tracallig - - - -	Slip - - - -	68	167	235	In progress.
46	Hare Island - - -	Causeway - - - -	3	329	332	do.
47	Ballinakilla - - -	Pier Repairs - - -	4	—	4	do.
48	Beltmore - - - -	Slip - - - -	—	85	85	do.
49	Glangriff Pier - - -	Dredging - - - -	—	328	328	—
Total spent on Marine Works - - -			75,677	2,700	78,378	

* Contribution under the Marine Works Act.

† Credits exceeded Expenditure by amount specified.

CONGESTED DISTRICTS BOARD FOR IRELAND.

STATEMENT showing Expenditure on Marine Works for the period from 1st April, 1909, to 31st August, 1910.

County	Name of Work	Particulars	Amount
Donegal	Portlaoine - - -	Slip - - - -	£ s. d.
	Gortnasate - - -	Beacons - - - -	17 19 0
	Port Vaugh - - -	Slip - - - -	168 10 10
	Inishkerro - - -	Light - - - -	471 0 4
	Mullaghbeg - - -	Light - - - -	117 14 3
	Casson Sound - - -	Pier - - - -	432 8 3
	Inishboffin - - -	Pier - - - -	438 10 1
	Leahpurrow - - -	Slip - - - -	722 6 0
	Buncrana - - - -	Pier - - - -	589 16 8
	Gortnasate - - -	Water Supply - - -	225 0 0
	Magheracourt - - -	Pier - - - -	692 16 5
	Mulroy - - - -	Light - - - -	1,124 15 1
	Ballygannet - - -	Slip - - - -	602 10 11
	Inishkeeragh Island - - -	Protection Wall - - -	113 18 6
	Tooy Island - - -	Pier Extension - - -	65 15 9
			796 4 8
			6,265 5 9

CONGESTED DISTRICTS—Continued.

County.	Name of Work	Particulars.	Amount.	
			£ s. d.	£ s. d.
Mayo	Deeagh	Landing Place	1,063	1 2
	Elbow Harbour	Harbour Works	52	7 4
	Carrowmore	Harbour Works	438	2 7
	Keel (Achill)	Harbour Works	179	0 0
	Grangehill	Pier	534	4 11
	Bunbrough	Landing Place	329	0 2
				3,193 16 2
Galway	Glynisk	Pier and Road	107	16 0
	Cloggan	Pier	479	14 0
	Do	Cliff Wall	132	18 7
	Inishree	Light	68	9 3
	Kilmurvey	Pier	512	1 9
	Deer Island	Light	504	3 9
	Carna	Pier and Road	996	17 1
	Yellowstone	Landing Place	129	11 11
	Doonboughan	Pier and Road	76	0 8
	Cloggan	Waterworks	687	0 2
	Inishree	Pier	118	17 10
	Inishmaan	Ship	1,348	6 8
	Cushla	Light	147	13 3
	Twin	Pier	606	16 2
	Derryrush	Pier and Road	172	18 2
				5,077 3 1
Clare	Foulisorn	Pier	1,196	4 10
	Dysan	Ship	351	4 8
	Kilkee	Ship	23	0 0
				1,570 9 8
Cork	Baltimore	Harbour Works	1,024	6 1
	Reen	Pier	828	8 6
	Kilcastlemaize	Quay	288	19 11
	Billydonoghan	Quay	1,108	15 11
	Germies	Pier	211	13 9
	Baltimore	Patent Ship	122	16 9
				3,649 16 11
Kerry	Dunquin	Pier	207	7 9
	Boske	Rock Removal	75	0 0
	Boske	Wyck Removal	634	13 5
	Coscorraun (Caherciveen)	Pier	1,894	1 7
	Do (Ventry)	Pier	420	13 9
	Caherciveen	Pier	351	12 11
	Renard Point	Pier	100	0 0
	Glashagah	Ship	946	17 8
	Ballinskelligs	Pier	647	1 8
	Dingle	Harbour Improvements	106	0 0
				5,212 7 0
		Grand Total		225,002 1 2

APPENDIX No. 3.

MEMORANDUM transmitted by the Dublin Industrial Development Association supplementary to the evidence given on its behalf by Mr. H. M. Doherty, Past President of the Association, on 10th September, 1918.

The Dublin Industrial Development Association is a voluntary body which has been in existence since 1906 and has for its object the encouragement of Irish industries. It consists of about 450 members who are chiefly manufacturers, with a considerable proportion of commercial and professional men, and many public spirited citizens, men and women. By its constitution, half the governing body, known as the Council, must be manufacturers. The Council meets weekly throughout the year, and deals with all matters of interest to the industry and commerce of Ireland, with particular reference to Dublin City and County. The Association is supported by manufacturers in all parts of Ireland from Donegal to Waterford, and enjoys in an increasing measure their confidence and monetary support. It publishes an Annual Report, a Directory of Irish Manufacturers, and various Special Reports on important matters from time to time, as well as propagandist literature. The Association is non-political, and persons of all shades of thought meet at its weekly Council meetings and at its General Meetings in complete harmony and co-operation.

The Association would represent that the question of the canals and harbours is in itself only a comparatively small branch of the much larger and briefer one concerning the whole transport system of the country, and can be profitably considered only in connection with that of the Railway, Light Railway, Tramway, River Road and Motor Services. To lead to any permanently serviceable result the inquiry would indeed have to go further, and examine the subject in its relation to cross-channel and overseas lines of communication, as these exist at present, and are likely to develop in future, keeping in mind the possibilities of radical post-war changes in ocean routes, such probable local developments as, say, the establishment of a large ocean terminal on the west coast of Ireland, or the potential establishment of substantial mining or metallurgical industries at different centres.

The Association, although more particularly concerned with the industrial development of the Dublin district, has always recognised that the improvement of its transit facilities is interdependent with that of the rest of the country, and from this standpoint holds that it is essential to the industrial regeneration of the country that all the means of transit should be under unified control, whether this takes the form of complete State Nationalisation as on the Continent, or of a Board or Commission working under State Control as recently advocated by Sir Robert Gordon for the Canadian Railways.

It is submitted, therefore, that the transit question of Ireland can only be dealt with on the principle of complete nationalisation of all the means of communication, Railways, Roads, Canals and Waterways, Harbours, Aerodromes, and Aero Landing Stations under the control of a special authority.

The experience of all the progressive nations of the world is that the provision of the freest communications and transit facilities is a pre-requisite of every phase of national development, and Ireland will prove no exception to the rule. That is why we advocate the taking of the long view at the present juncture if the Government seriously entertain intentions of restoring prosperity and the full national population to this country. Any immediate measures of revision or improvement of traffic facilities must budget not only for the present really abnormal conditions, but, following the example of all modern commercial communities, also for those which are likely to exist fifty years or more ahead.

It may be interesting here to recall that in 1904 out of 101 Chambers of Commerce in England responding to an inquiry on the subject, no less than 61 pronounced in favour of the nationalisation of the canals, to be effected by transferring them to a national public trust with State Guarantee supervision and control, and to mention that the Prime Minister, Mr. Lloyd George, on the 20th March last, in reply to the proposals of the Trades Union Congress for the nationalisation of the railways, canals and waterways of the kingdom, expressed cordial and sympathetic approval, expressing his anxiety that a system should exist in this country similar to that in France and Germany where practically all the railways and canals are State owned and managed.

In the event of the nationalisation of the Irish canals and waterways the Association holds the view that the monopoly should not be an exclusive one as in the case of the carriage of mails by the Post Office, but that they should be open, with whatever limitations might be found to be desirable, to the use of the public or private carriers on payment of tolls, so as to afford a corrective in case of any shortcomings in the State management of the traffic, such as a tendency to consider these facilities too much from the Revenue point of view and too little from that of economic development.

Whether the long or the proximate view be favoured, however, one of the most essential preliminaries to any proposed reorganisations, either on a local or national basis, is the compilation and systematic use of accurate current statistics of traffic by all existing means of transport. There should be a statistical branch compiling and analysing by the Hollerith or some similar method the movements of each class of traffic on every route. There should be power to compel the periodical furnishing, in a prescribed form, of returns by all public carrying agencies of whatever description. The returns could be devised so as to show, apart from the conveyance of goods, the movements of all goods waggons, canal boats, or goods vehicles, and thus assist the controlling authority in co-ordinating and making the most advantageous and economical use of all the services, railway, canal, etc., at work with the possibility of effecting great accelerations at an enormously reduced cost in running expenses and capital expenditure. The returns also would enable the central authority to alter and revise routes and rates from time to time in harmony with the commercial, agricultural and industrial progress or retrogression, which must on a long view of things be expected to take place from time to time in various localities, and with the alterations which may take place in international or cross-channel routes.

The fact recently stated by an expert in a magazine article, that in England a railway wagon is doing effective work in the carriage of goods for only about a quarter-of-an-hour during each twenty-four hours of its existence, is an indication of the very considerable economies which a proper use of statistics might render possible. Such economies would, no doubt, be relatively greater in Ireland than in England, and would also be possible in the case of canal boats, motor feeder services, etc.

Other essential conditions to any effective improvement in canal transport, apart from the centralisation of control, are those of general standardisation within the practicable limits of the depth, width and overhead clearance under bridges of canals, and the length, depth on sill, and width of Lock Chambers, so as to permit of "through" voyages without transshipment. These limits would depend primarily on the maximum tonnage of the boats likely to be required for the growth of traffic to be expected. Representations have been received by the Association, that a connection between the Royal and Grand Canals would assist the development of industries in the Midlands, the line suggested being a canal of about 6 miles in length connecting Kiltbeggen and Mullingar via Lough Ennell, use being made if practicable of the disused waterway between the lake and Mullingar known as Lacy's Canal. Such a connection would obviate a long detour through Dublin or via the River Shannon in the carriage of goods between the midland towns, and encourage the growth of the woodworking industry, such as that carried on, for instance, by Messrs. Alsbury at Slenderry, Kings County.

It would be looking too far ahead, we fear, in the case of Ireland, to suggest dimensions on the scale laid down, for instance, in the law passed by the French Government in 1879, by which all canals, whether owned privately or by the State must have a minimum depth of 8½ feet, with locks 126 feet by 17 feet, and a minimum clearance under bridges of 12 feet, thus enabling boats of 300 tons burden to use all the main waterways, but it would not be more than reasonable to anticipate and provide in Ireland for boats of 50 or 60 tons.

The following are the maximum sizes of boats that can use the various canal systems in Ireland as estimated by the Board of Works in 1899 (ad 19-1899) :-

MAXIMUM DIMENSIONS OF BOATS.

	Length.	Breadth.	Depth.	Headway under Bridges.
	Ft. Ins.	Ft. Ins.	Ft. Ins.	Ft. Ins.
Newry Navigation - - - - -	64 6	15 1	5 2	9 3
Lagan - - - - -	62 0	14 6	5 6	6 3
Lough Neagh, Upper and Lower Bann - - - - -	110 0	18 6	4 0	
Tyne Navigation - - - - -	62 0	14 6	5 0	6 0
Ulster Canal - - - - -	62 0	11 6	5 0	6 0
Lough Erne Navigation - - - - -		Minimum depth.		Not now used.
Ballycarn and Ballycarnell Canal - - - - -		13 0	4 6	11 6
Shannon Navigation - - - - -	46 0	No Locks		
Maigue Navigation - - - - -			
Boyal Canal - - - - -	70 0	13 1	4 6	10 0
Grand Canal - - - - -	61 0	13 6	4 6	9 0
Barrow Navigation - - - - -	68 0	13 4	4 0	8 0
River Suir Navigation - - - - -	No Locks		
Boyne Navigation - - - - -	70 0	14 3	4 6	7 0
Foyle - - - - -	70 0	16 0	5 0	12 0
Lough Corrib - - - - -	130 0	20 0	8 0	6 6

Minimum Depth.

Boats might for the more economical handling of traffic be standardised in three or more sizes and constructed cheaply either of steel, iron, or ferro-concrete, so as to carry say, one class up to 15 or 20 tons, another up to 40 tons and a third up to 60 tons.

The design of the boats, too, might well in the same connection be a matter for careful consideration at the hands of experts in the light, for instance, of the experiments recorded by the United States Navy Department as regards the tractive resistance of different shapes of under-water section in ships, and the formation and resistance of waves in different circumstances. The unnecessary "dead water" resistance arising from the flat transoms of many of the boats in use on the Irish canals must add greatly to the force necessary for traction, besides creating a section which must by increasing greatly the normal wear and tear of the canal banks add unnecessarily to the cost of upkeep.

If the communications of the country were all nationalised it would, of course, be necessary and quite possible with the assistance of experts, to classify the traffic systematically as a whole and deal with it as is suggested in the memorandum forwarded with the Association's letter to the Commission.

In view of the wealth of detailed evidence given at previous enquiries into every branch of the canal working of the country, the Association would not here mention the question of haulage power further than to express the hope that in any contemplated improvements sight will not be lost of the possibilities later on where the growth of trade would warrant, of displacing horse haulage by some modern system of mechanical haulage. Towing by power boat has been stated to be costly, both in running expenses and in wear and tear of canal banks; electric traction by means of trolleys is open to a number of practical objections. Auto-motor power appears to be open to some of the same objections as towing, and so far the balance of opinion would seem to be in favour of the "Lavy" system as used on the Seine-et-Marne Canal in France, which consists of an endless cable constantly running along the tow-path, at any point of which a boat may be attached or detached by the boatman without leaving his boat. The system too can be carried on side by side with horse haulage, and there is the possibility of all or most of the necessary power being furnished by the canal water.

PORTS.

The only port in which the Dublin Industrial Development Association is directly interested is Dublin. Attention has frequently been directed in the Press to the way in which the port has suffered for some time past and continues to suffer, from diversions of traffic due to many causes, not the least being the struggle for traffic between competing lines of British Railways in agreement with certain Irish Railways. To add to the difficulties the present Port and Docks Board have inherited, and the port is suffering from the deficiencies of a past financial system under which it would appear no provision, or in any case insufficient provision, was made for the extinction of outstanding loans, and the Board falling due after the outbreak of war left the Board no option but to renew on unfavourable terms, to most which they have had still further to increase the rates, already as high as any probable traffic could bear without risk of diversion. The war at the same time has had a disastrous effect on the foreign trade of the port, which, although in this respect all the ports of the Kingdom may be stated to be suffering alike, coming at the time it did, and in the peculiarly unfavourable conjunction of circumstances above alluded to, the port of Dublin will have greater difficulty in overcoming them others.

The geographical situation of Dublin, no less than the fact that it is the radiating centre, marks it out as the principal entrepot for trade between Ireland and Great Britain, and foreign countries, but the port would require considerable improvement in the direction of the provision of deeper berths, and modern appliances for the loading and unloading and trans-shipment of cargo before it could be said to be in a position to hold its own.

The provision of increased and modern facilities for the handling of traffic is an outstanding necessity of the port. Much might be done if it is thought by revision of the berths, without much disturbance of the cross-channel steamers' berthing, to concentrate the overseas traffic in the neighbourhood of the Alexandra Basin and the Eastern or outward end of the North Wall, or possibly to concentrate the different main kinds of traffic such as say, timber, coal and grain in particular sections of the port where the necessary facilities would be provided. Railway lines should be run along all the quays on the North and South side, with connections to the main lines of Railway, and a sufficiency of electric cranes supplied on both sides of the river. The question of an extension of the Dublin Tramway System along the Quays and its utilisation for the delivery of inward goods to the City and Suburbs should be considered.

In the matter of loading and unloading cargo vessels economy of time, it need scarcely be pointed out, is the factor of prime importance, time is money. In this connection Professor W. S. Abell, in an address delivered in March last to the Institute of Naval Architects, stated that half the time of our merchant vessels was, owing to unnecessary delay in loading and unloading, spent in port.

Discussing this address, Mr. Percy S. Donald, Managing Director of Robinson, Drew and Glydehead, Ltd., and with reference to the importance of efficiency in cargo handling that he believed more than half the time of ships was spent in port, and calculated that an acceleration of only 12½ per cent would be equivalent to a gain to the existing mercantile fleet equal to the annual loss by submarine. He was prepared to demonstrate that acceleration from 10 per cent to 25 per cent was possible at most ports. A competition in cargo handling would give most startling figures if based on the following fundamentals:—

- (1) Tons unloaded per hour per man employed.
- (2) Inclusive cost per ton for (a) loading and (b) unloading.
- (3) Gross ships tons lying idle per day at each port.

The Association would suggest, if as a result of the labours of the Commission some practical measures for the improvement of the port of Dublin are likely to be put in train, that before any practical steps are taken a special conference of representatives of the Port and Dock Board, the Irish Railway Companies having termini in Dublin, the Dublin Corporation, users of the Port, the City Members of Parliament, the Dublin Chamber of Commerce and of this Association, should be held, with a view to the drawing up of an omnibus scheme dealing as a whole with the steps necessary to reorganise the transport services of the country radiating from the Port of Dublin.

If the Port of Dublin were to be dealt with as comparatively small entrepôts on the Continent have been, it would be desirable to examine the possibilities of extending the North Wall seaward for a considerable distance, even to the present entrance to the river at the end of the North Wall for which plans are understood to be in existence, and utilising the space thus enclosed for large and deep dock and quay accommodation, a central railway goods yard and canal depot combined, sites for shipbuilding yards, graving docks, foundries, engineering works, and other such natural adjuncts to the business of a large port; also cattle shipping yards and quays, arrangements being made for the transport of cattle from the Corporation Cattle Market or from the interior portions of Ireland to these yards by rail all the way. In this connection the possibility of providing an abattoir and stores for the projected dead meat trade in the same neighbourhood would be considered.

The example of the foresight and enterprise of a number of comparatively small German communities in directions such as those above mentioned may be cited. We have Bremen planning not only new harbours but a new town; Mannheim buying hundreds of acres of marshy land near the river and laying it out as an industrial area supplied with docks, quays, and railway communications, and equipped with the most modern appliances for loading and unloading vessels and enabling factories and warehouses to be erected to receive raw materials for industries by water.

The population of Mannheim was only 105,000 when this enterprise, involving an outlay of £3 10s. per head of its population, was undertaken. The enterprise was clearly understood on all sides to be a measure of economic development, financial considerations being quite subsidiary. Frankfurt-on-the-Main has been similarly progressive, and has found it necessary to extend its existing dock accommodation considerably. All the available space within the town boundary having already been allocated, and the existing docks abutting on populous districts where extension was impracticable, a site was acquired outside the town of over 700 acres, with a river front of 2 miles and a depth of from 1,300 to 2,400 yards; railway connections will join on to the trunk lines, an extensive hinterland being reserved for factories in the hope that with a provision of facilities a thriving industrial centre will spring up.

Dusseldorf has adopted similar measures.

The instances mentioned are quoted here as showing the far-sighted views taken by the Municipal and State authorities in Germany in regard to the development of facilities for water transit, which they properly regard as the necessary preliminary to, not the consequence of, successful development of trade and industries.

A. MITCHELL, President
E. N. SOMERS, Secretary.

SPECIFIC RECOMMENDATIONS OF DUBLIN INDUSTRIAL DEVELOPMENT ASSOCIATION.

CANALS.

1. Unified Control of Canals and other means of Transport under a Public Authority.
2. Standardisation of boats and regulation of depths of Canals, so that boats from any Irish Canal can travel on any other, and such other necessary alterations as would enable this to be done.
3. A short Canal connecting the Royal and Grand Canals between Kiltoggan and Mullingar, via Lough Ennel and Lacy's Canal. No connection now exists except at Dublin.
4. Expert investigation of haulage system, trolley, cable, motor, etc., with a view to adopting most suitable for Irish Canals.

PORT OF DUBLIN

1. The South Quays to be connected with the Dublin and South Eastern Railway line.
2. The Tramways to be utilised for the distribution of goods from the Quays to the City and Suburbs.
3. Cranes to be provided where they do not already exist for unloading heavy goods.
4. A grain elevator to be provided to unload direct from the ship.

APPENDIX No. 4.

Copy of Correspondence with the Admiralty and Statements transmitted by the Dublin Port and Docks as supplements to the evidence given by the Board's Chairman (Alderman James Moran) on 10th September, 1918.

(a)—NEGOTIATIONS WITH ADMIRALTY RESPECTING IMPROVED GRAVING DOCK AND "FITTING-OUT WHARF" ACCOMMODATION AT THE PORT OF DUBLIN.

On the 5th of July, 1917, the Port and Docks Board considered a report from the Harbour Master in regard to providing additional Dock and Ship accommodation. The report was referred to a Sub-Committee for consideration and report.

On the 27th of December, 1917, the Admiralty wrote enquiring when it was proposed to start the construction of a Fitting-out Jetty close to the Graving Dock, which had been the subject of an agreement with the Dublin Dockyard Co., Ltd.

On the 31st of January, 1918, the Chairman presented the report of the Sub-Committee to a Committee of the whole Board, and it was approved. The Board then authorized the Chairman and Vice-Chairman to act in the matter, and,

On the 5th of February, 1918, the Secretary communicated to the Admiralty the Board's views (copy of letter submitted in evidence by the Chairman of the Board on 10th September, 1918).

On the 8th of February, 1918, an acknowledgment of this letter was received.

On the 6th of April, 1918, the Board wrote expressing their disappointment and regret that the views of the Admiralty in regard to the proposed works had not been received by them, and pointing out that the Board were being urged to facilitate shipbuilding at Dublin, and they could most effectually do so by beginning the construction of the Spur Wharf referred to in their letter of the 5th of February, 1918.

On the 15th of April, 1918, intimation was received from the Admiralty that the Board's letters of the 5th of February and the 6th of April had been referred to the Director of Ship Repairs, Admiralty.

On the 17th of May, 1918, the Admiralty wrote that the proposed extension of the Dry Dock and the building of the Spur Jetty had been carefully considered and discussed with the Director of Ship Repairs and that a Resident Engineer was being sent to Dublin to visit the site and forward a report.

On the 29th and 30th of May, 1918, Mr. Ormiston Chant, Resident Engineer, representing the Admiralty, had an interview with Alderman Moran (Chairman of the Port and Docks Board), Mr. Walter Scott (District Superintendent of Ship Repairs, Dublin Area), and Mr. Mallagh (the Board's Engineer), with reference to the extension of the Graving Dock, the building of a Spur Jetty and the provision of a New Graving Dock. Estimates for the different works were given to Mr. Ormiston Chant.

During the month of June, 1918, there was considerable correspondence between Mr. Ormiston Chant and the Board's Engineer with regard to details of estimates and designs connected with the proposed works.

On the 9th and 10th of July, 1918, Mr. Walter Scott, together with the Board's Engineer and Law Agent, saw Major Brims, Director of Extensions, Admiralty, in London, and discussed with him details of the proposed works, and also explained to him the limitations the Board were under with regard to financing the scheme; and reiterated the desire of the Board to facilitate in every way the immediate initiation of these works, subject to the restrictions placed on them by their Acts of Parliament. Interviews also took place with responsible officials of the Board of Trade and the Treasury as to the possibility of securing power of utilizing portions of the Board's borrowing powers for £200,000 for other, but similar, purposes than that earmarked. No progress was made in this direction.

On the 15th of August, 1918, the Director of Extensions wrote that nothing more could be done until the point was settled whether the Dublin Port and Docks Board had received permission to carry out the proposed works out of capital.

On the 27th of August, 1918, in reply thereto, the Board wrote that they were without the views of the Admiralty, as based upon the report of their Engineer, who had already visited Dublin; that the Board were sitting to abide by their offer of the 5th of February, 1918, and that they had been advised that they had no power to expend any portion of the £200,000, which the Board had power to raise, on any other work than the building of a New Graving Dock, and suggesting that the Admiralty might, under the Defence of the Realm Act, authorize them to spend portion of this money on the extension of the present Graving Dock, and, further, that nothing had been done in connection with the Spur Jetty as the Board were waiting the decision of the Admiralty as to what proportion of the cost of this work they proposed to bear.

COPY.

Urgent.—461.

Port and Docks Office,
Dublin, 6th April, 1918.

Reference D.C.A.S./B4x/x2/43262.

Sir,—The Dublin Port and Docks Board have instructed me to communicate to you their disappointment and regret that they have not yet been favoured with a reply to their important communication of 5th February last. Increasing pressure to meet the public requirements in regard to Dry Dock accommodation at this Port is being daily urged upon the Board, as well as the immediate necessity to at once begin the Spur Jetty or Pier adjoining their Graving Dock. As already stated, the early construction of this Pier as a fitting out berth is a matter of urgent public importance to shipping, and also to be of the greatest advantage to the Admiralty.

The Board, therefore, trust that you will be so good as to give these matters as set out in my letter your earliest attention.

I am, Sir,

Your obedient Servant,

(Signed) N. PROUD, Secretary.

P.S.—Copy of my letter above referred to attached.

Major C. W. Brims,

Deputy Director of Engineering Works,

Admiralty Control,

Great George's Street, London, S.W., 1.

COPY.

1935.

Port and Docks Office,

Dublin, 27th August, 1918.

Sir,—Referring to your letter of the 17th May last, C.G.M.S., 1558/x2, and to mine of 5th February and 6th April last, on the construction of a Spur Wharf or Jetty, and to extending Dry Dock accommodation at this Port, the Dublin Port and Docks Board would be glad to be favoured with the views arrived at after the visit of your Resident Engineer to the site to which you refer.

I am to state that with regard to additional Graving Dock accommodation the Board were advised that the sum named under their Port Act, viz., £208,000 could only be appropriated to the building of a New Dock, and not to the alteration of an existing one.

Under the circumstances it would be of great advantage to Shipping if the Admiralty authorised this Board under the Defence of the Realm Act to utilise sufficient of their borrowing powers to enlarge their existing Dry Dock accommodation, instead of limiting them to the construction of a new one.

I am to add that for the reasons already given the Admiralty the Board are most desirous of proceeding with the proposed Spur Jetty, but unfortunately are prevented from doing so by reason of the fact that they have not yet been favoured with the views of your Department in regard to the proportion of the cost they are prepared to pay.

I am, Sir,

Your obedient Servant,

(Signed) N. PROUD.

Major C. W. BRIMS,
Director of Extension,
Admiralty,

Great George Street, London, S.W., 1.

(B)—DUBLIN PORT AND DOCKS BOARD.

EXPENDITURE—SOUTH QUAYS.

City Quay Deepening	-	-	-	-	-	-	-	£42,915	17	1
George's Quay Deepening	-	-	-	-	-	-	-	21,961	4	3
								71,877	1	4
Electrical Equipment and Electric Portal Wharf Cranes	-	-	-	-	-	-	-	14,312	2	8
								£86,189	4	2
Capital	-	-	-	-	-	-	-	£19,661	18	7
Revenue	-	-	-	-	-	-	-	66,544	5	7
								£86,186	4	2

ACCOUNTANT.

September, 1918.

(C)—DUBLIN PORT AND DOCKS BOARD.

CAPITAL EXPENDITURE AUTHORISED UNDER ACT OF 1902.

Works.	Amount Authorised.	Expended to 31st Dec., 1917.	Balance unex- pended at 31st Dec., 1917.
	£ s. d.	£ s. d.	£ s. d.
Dredging River Channel and Bar and Reclama- tion of land north of Alexandra Basin	110,000 0 0	110,000 0 0	—
Reconstruction of Old Quay Walls at Glasgow, Belfast and London Berths	60,000 0 0	37,292 4 1	2,707 15 11
Sheds at Glasgow, Belfast and London Berths	12,000 0 0	9,324 17 2	2,675 2 8
Reconstruction of Old Dock Bridge	12,000 0 0	9,324 17 2	12,000 0 0
Eastern Breakwater and Lighthouse	30,000 0 0	25,063 10 6	4,936 9 7
Deepwater Jetty near Grounings Works	4,000 0 0	2,961 9 4	1,038 10 8
	230,000 0 0	297,632 1 1	23,367 18 11
Widening of North Wall Quay	10,000 0 0	11,368 10 9	7,632 9 3
Completion of North Quay Extension and Alexandra Basin	500,000 0 0	183,635 8 9	14,364 11 3
New Graving Dock	200,000 0 0	183,635 8 9	200,000 0 0
Graving Slip Alterations and Crane	18,000 0 0	17,960 2 11	9 17 1
Thruway Renewals	10,000 0 0	6,998 3 4	3,177 16 8
Lights, Buoys and Beacons	4,000 0 0	8,350 13 0	629 7 0
	600,000 0 0	430,618 10 10	208,181 0 2
Unscheduled Works	60,510 15 7	60,510 15 7	—
	735,510 15 7	496,229 15 5	239,181 0 2

ACCOUNTANT.

September, 1918.

(d) CONSTITUTION OF PORT AND DOCKS BOARD, DUBLIN, UNDER "DUBLIN PORT AND DOCKS ACT, 1898."

The Lord Mayor for the City for the time being. Six members of the Corporation to be appointed by the Corporation, who shall hold office for three years, if they remain members of the Corporation. Twenty-one elective members, twelve Traders' members, and nine Shipping members, who shall hold office for three years.

Election held annually on second Tuesday in January.

Elected Members take office on second Thursday in January.

Qualification of Traders' Members.—Male persons of full age being resident within 15 miles of City boundary and possessing one or more of the following qualifications:—

Owner of lands or buildings situated within 15 miles of City boundary rated at £60 or upwards.

Possessor of personal estate to the value of £3,000 or upwards.

Being in possession or in receipt of the rents and profits of land which are held by or in trust for him for some estate of freehold of rateable value of £100. Provided where two or more persons are jointly rated in respect of any property each of such persons shall be qualified to be elected if the valuation of the property when divided by the number of persons so rated shall be value of at least £60.

Qualification of Shipping Members.—Male persons of full age being resident within 15 miles of City boundary and possessing one or more of the following qualifications:—

Being registered owner of shipping registered at Port of Dublin of 500 tons or upwards and having paid £200 or upwards in the twelve months ending 31st August preceding day of Election.

Having paid Tonnage Rates at Port of Dublin to amount of £500 or upwards in the 12 months ending 31st August preceding Election.

Being a director or authorised manager of any Shipping Co., which company possesses either of the above qualifications.

Being the manager or agent duly authorised in writing under hand or in case of a company under seal of any person or company being owner of shipping not registered at Port of Dublin, but which person or company has during twelve months above mentioned paid Tonnage Rates at Port of Dublin amounting to £500 or upwards.

Where shipping is registered jointly the amount shall be the result of a division of the total amount of such tonnage or rates by the number of persons so owning or paying the same.

Elections have been postponed by the Board of Trade from year to year since January, 1916.

APPENDIX NO. 5.

REPORT dated 17th September, 1894, of Major-General C. S. Hutchinson, R.E.; Report dated 23rd August, 1895, of Major F. A. Marindin, R.E.; and Report dated 15th September, 1906, of Mr. Dudley Fletcher, relative to the Royal Canal, handed in by Mr. Thos. F. Nooney, a member of the Board of Control of the Canal during his examination on 10th September, 1916.

(a)—MIDLAND GREAT WESTERN RAILWAY OF IRELAND
(ROYAL CANAL).

Board of Trade (Railway Department),

8, Richmond Terrace, Whitehall, London, S.W.,

Sir,

17th September, 1894.

I HAVE the honour to report, for the information of the Board of Trade, that in compliance with the instructions contained in the Order of the 5th June, 1894, I have inspected the Royal Canal belonging to the Midland Great Western Railway Company of Ireland, with reference to the complaint as to its condition contained in a memorial signed by 35 traders and boat owners on the canal and forwarded to the Board of Trade on May 29, 1894, by five Irish members of Parliament.

The inspection of the canal was preceded and followed by an enquiry at the Canal Office at the Spencer Dock, Dublin, attended by representatives of the traders and boat owners, and of the Railway Company.

The inspection, which was made in a fly boat (kindly placed at my disposal by the Railway Company) drawn by horses, occupied six days.

The Royal Canal, which was constructed under the powers of an old Act of Parliament, originally extended from the Broadstone, Dublin, to Richmond Harbour, County Leitrim, with branch to Longford and a harbour at Mullingar. It was afterwards extended to the Spencer Dock on the banks of the Liffey, and was in the year 1844 acquired by the Midland Great Western Railway Company, under the powers of an Act of Victoria 8 & 9 cap. 119.

The total length of the canal from the Spencer Dock to Richmond Harbour is about 90 miles, the branch to the Broadstone is about half a mile long, and that to Longford about 5½ miles long. There are altogether 46 locks on the canal, which rises about 303 feet through 25 locks from Spencer Dock to Mullingar Level, and thence falls 170 feet through 21 locks to the river Camlin. It is supplied chiefly

from Lough Ouel through a channel about $2\frac{1}{2}$ miles long, near Mullingar, the top of the overfall being about $8\frac{1}{2}$ feet above the sill of the graving dock at Mullingar.

I have not been able to obtain the original sections of the canal, but the Board of Works has been good enough to lend me a report, plan, and longitudinal section of the canal, made in the years 1803-64, to which reference will be made hereafter.

The complaints as set forth in the memorial of the traders and boat owners are to the following effect:—

1. That since the Railway Company purchased the canal, and especially since they ceased to run their own boats and steamers, the waterway has become in many places so choked with weeds and mud that during the summer months the boats have not been able to carry anything like their full cargo, thereby causing loss and damage to their trade and humours.
2. That the wharfage and warehousing accommodation which existed at the time the Company purchased the canal has been allowed to deteriorate and fall into decay, that in many places no such accommodation now exists, and that at the Spencer Dock it is entirely insufficient.

Evidence bearing upon these complaints, and upon other grievances not specially alluded to in the memorial, was given by the following witnesses:—

1. Mr. Noonan, general merchant, Mullingar.
2. Mr. John Kelly, boat owner, Kilscock.
3. Mr. Fee, general merchant, Longford.
4. Mr. Kennedy, boat owner, Ballymahon.
5. Mr. McDonald, boat owner, Cappagh, Enfield.
6. Mr. Coffey, boat owner, Summer Hill, Dublin.
7. Mr. Fleming, miller and boat owner, Longford.
8. Mr. Leach, boat owner, Summer Hill, Dublin.
9. Mr. T. Byrne, boat owner, Clerk's Town, Enfield.

Evidence on the part of the Railway Company was given by the following witnesses:—

1. Mr. Taylor, general manager.
2. Mr. Myles, assistant engineer.
3. Mr. Fleming, superintendent of the canal.
4. Mr. Williams, inspector of the canal.
5. Mr. Hamilton Smythe, engineer in charge of canal.

The evidence of the complainants went to show (1) that whereas in former years boats could be loaded to a depth of 4½ ft., and eight years ago to a depth of 4 ft., this depth had been now reduced to $2\frac{1}{2}$ ft., and during part of the summer of 1893 to $2\frac{1}{4}$ ft., thereby reducing to a most serious extent the loads which the boats were able to carry, and (2) that the accommodation as regards wharfage and warehouses at the Spencer Dock and other places was quite inadequate for the requirements of the traffic.

Complaints were also adduced as to a want of facilities for passing through the Liffey Locks at the Spencer Docks, these facilities having been of recent years much curtailed; as to the bad state in which the towpaths were maintained; as to unnecessary changes of the towpaths from one side of the canal to the other; as to several of the passing places and places for turning boats being unusable for want of depth; as to refuse being allowed to be thrown into the canal.

In reply to these complaints, the evidence of the Company's officers was directed to show that the Company had done all in their power to comply with their obligations as to keeping the canal clear of weeds and mud, and that it was owing to the exceptional drought of the summer of 1893 that it was necessary to reduce the draughts of the boats to the extent complained of; that the wharfage and warehousing accommodation provided at the Spencer Dock and other places was fairly sufficient; that the passage through the Liffey Locks was regulated by a bylaw approved of by the Recorder of Dublin on January 18, 1878; that the towpaths are repaired when it is necessary to do so; that though some of the passing places and harbours are silted up no complaints have been received in consequence, or they would have received attention.

It was stated by the inspector of the canal that there were now 14 boats lying on it.

I will now proceed to detail my experience of the state of the canal as gained in the course of its inspection.

WEEDS.

These occurred in sufficient numbers to more or less impede the navigation between the 8th and 9th locks, near the 12th lock, near Kilscock bridge, between Cappagh and Enfield, between the 20th and 21st locks, between the 21st and 22nd locks, near Monck's bridge, near Down's bridge, near Ballinacra bridge, between Mullingar and Ballymahon bridge, between Ballinacra and Coalbrook bridges, near aqueduct, between Toom's bridge and Ballymahon, between Ballymahon and Archer's bridge, between 40th lock and Terlicke bridge, between Alley's and Island bridge, junction to 42nd lock, between 41th and 43th locks, between 45th and 46th locks, and in some parts of the Longford branch.

These weeds differed much in nature and quantity, in some places it was stated that they had already been cut this summer and were a second growth; if so, this would tend to show that a more efficient way of dealing with them should be adopted.

DEPTH OF WATER.

This varied considerably, and was as a rule greatest where the canal was formed in boggy ground, and least under and close to bridges. Soundings were taken at the following places (where it was so desired by one or other of the traders or boat owners who accompanied me on the inspection):—

DEPTH OF WATER.—*Contd.*

Locality.	Least Depth of Water in the Width of Channel required for a Canal Boat about 12½ ft. wide.	Locality.	Least Depth of Water in the Width of Channel required for a Canal Boat about 12½ ft. wide.
	Ft. In.		Ft. In.
Coolmine bridge - - -	4 3	Cloonserry bridge - - -	4 6
Maynooth - - - - -	4 10	Between this bridge and Enfield	3 9
Bridge near 15th lock - -	4 2	Do. do. - - - - -	3 0
Kilcock - - - - -	4 6	Do. do. - - - - -	3 0
Between 15th and 16th locks	4 2	Lie bye above Enfield - -	4 2
Kilcock bridge - - - -	4 0	Second do. do. - - -	3 9
At overflow near do. - -	4 0	Kilmore bridge - - - -	3 10
At about one mile beyond 17th lock	3 0	Hill of Down bridge - -	3 1
At 2½ miles beyond 17th lock	3 6	Darcey's bridge - - - -	4 6
18th lock - - - - -	3 6	Terleken bridge - - - -	4 0
Down's bridge - - - -	3 0	Near Richmond harbour -	3 2
Baltrossa bridge - - - -	4 5	Do. Do. - - - - -	3 5
	(rocky bottom).	Do. Do. - - - - -	3 10
Sanderson's bridge - - -	6 0	Near 43rd lock - - - -	3 6
Dublin bridge (Mullingar) -	4 6	Near 44th lock - - - -	3 8
	(2 ft. at side).	Between 44th lock and Ballydrum bridge	3 6
Railway bridge (do.) - - -	3 9	Ballydrum bridge - - -	4 0
Sarranagh bridge - - -	3 6	Bagnagh bridge - - - -	4 6
Near 29th lock - - - -	3 6		
Near 29th lock - - - -	3 0	<i>Longford Branch</i>	
Near 31st lock - - - -	3 6	Newtown bridge - - - -	3 8
Near aqueduct - - - -	3 8	Near do. - - - - -	3 6
Abbeysrule - - - - -	3 4	At other places nearer Longford	3 9
Do. - - - - -	3 6		3 7
Ballymahon - - - - -	3 2	Railway crossing bridge at Longford	3 8
Archer's bridge - - - -	3 0		

HARBOURS, PASSING PLACES, AND TURNING PLACES.

These have in a large number of cases been allowed to silt up and become so shallow as to be practically useless for their intended objects; those specially complained of are between Blanchardstown and Clonsilla, at Maynooth, Kilcock, south side, between 15th and 16th locks, between 17th lock and Enfield, between Enfield and Nether junction, near Massey's bridge, near Baltrossa bridge, Rochfort harbour, Mullingar, Coolmine Bridge, 35th lock, near aqueduct, between aqueduct and Terleken bridge, Abbeysrule harbour (very shallow in parts), Town's bridge, between Archer's bridge and 40th lock, Terleken bridge, Alley's harbour, near Bagnagh bridge.

LOCKS

The walls of the locks are generally in a good state of repair, but, as a rule, the lock gates are leaking badly at the staves, leading to a constant waste of water, and indicating the need of more attention to the maintenance of these sluices. Some of the gates themselves and the handles for working them were in a bad state of repair.

TOWPATHS

Complaints as to the state of the roadway seemed justified by its condition in many places. There are also occasionally holes in the towpath where the canal bank has given way; these are, of course, dangerous to the horses, especially in the dark, and should not be allowed to exist.

In numbers of places bushes have been allowed to grow up between the side of the towpath and the canal. These are a serious impediment to the haulage of the boats and, unless carefully watched for, are liable to lead to accidents.

In many cases occupation gates, to separate fields, have been erected across the towpath; these cause a great interference with the haulage of the boats and are, it is believed, illegal encroachments on the towpath, and as such should not be permitted.

WAREHOUSE ACCOMMODATION.

With regard to complaints as to the want of this at the Spencer Dock and Broadstone, and that at other places the warehouses have been allowed to fall into a state of decay, it appears that when the canal terminated at Broadstone, and before the original terminus was utilized for railway purposes, there were large warehouses available for canal traffic, but which are now completely cut off from the canal. No equivalent for this accommodation has been supplied either at the Spencer Dock or Broadstone, the only covered building now available being a small shed on one of the quays at the Spencer Dock, where wharfage accommodation for canal traffic is also limited. The state of the warehouses at the other places where they exist is certainly such as to admit of considerable improvement.

The want of facilities for passing from the Spencer Docks into the River Liffey, though no doubt a serious grievance, hardly comes within the scope of this enquiry, the subject being dealt with by one of the byelaws dated January 18th, 1878.

As to the changes of the towpath from one side of the canal to the other, these were principally caused by the construction of the railway alongside of the canal, and hardly now admit of remedy.

The throwing of refuse into the canal, which appears to be done to some extent (particularly in the neighbourhood of bridges), is an offence against one of the byelaws and should be dealt with accordingly.

CONCLUSION.

Such being the result of my inspection of the canal I would now proceed to remark that the complaints of traders and boat owners as to its condition, &c., are in my opinion well founded both as regards weeds and shallowness. It may fairly be assumed that during the five weeks which elapsed between the railway company being informed of the inspection and its being made, considerable efforts had been used to cut the weeds, but even so there were the numerous places to which I have alluded where their number was still so great as to create a most serious obstruction to the passage of boats. It is evident that to keep the traffic on the canal free from the serious obstacle now caused by weeds, some more efficient means than are at present adopted will have to be employed.

As to the question of depth of water it will have been observed that according to many of the soundings, the depth was no more than 3 ft. in the shallowest part of the channel required for the navigation of small boats about 13½ ft. wide. In other cases where the depth exceeded this minimum, it was stated that the height of the water was from 6 to 8 inches above its normal level. As there must be some margin (at the very least 6 inches) between the available depth of water and the draught of a canal boat, it may be assumed that in the existing condition of the canal at the time of inspection these boats could not well be loaded so as to sink them deeper in the water than 2 ft. 6 inches.

The byelaw bearing on the subject of loading is No. 5 of the byelaws relating to the navigation and use of the Royal Canal allowed by the Lord Lieutenant on December 5th, 1861, and runs as follows:—

"No person shall load a vessel on the canal deeper than 4 feet 6 inches, or beyond such limits, at either stem or stern, as the officers of the company may fix by Public Notice."

By this byelaw it would appear that the depth of the canal should be sufficient to admit of boats navigating it with a draught of 4½ feet under ordinary circumstances. Whether the term "beyond such limits" gives the officers of the company power by public notice to reduce this draught seems doubtful, but at any rate the power has been assumed to exist, and between June 14 and December 27, 1863, no less than six public notices were issued, the first prescribing a depth of 2½ feet, this being reduced to 2 feet 8 inches on September 20 and increased to 3 feet 9 inches on December 27, since which time no further notice has been issued. It is hard to understand how, under the existing conditions of certain portions of the canal, it can be navigated by boats with a draught of 3 feet 9 inches. Admitting that the company has the right, which they claim, to call upon traders, &c., to reduce the draught of their boats, it is manifest that this must be a right to be exercised only under exceptional circumstances (such as the draught of 1863), and that when these have ceased to exist the normal draught of 4½ feet must be reverted to, otherwise the company would possess the power of practically closing the canal, by requiring such a small draught as to render the traffic absolutely unremunerative.

The complainants contend that, in accordance with the provisions of Sec. 36 of the Act of 5 & 9 Vict. c. 119, they are entitled to have the canal maintained so as to allow (as is stated to have been formerly the case) of their boats being navigated with a draught of 4½ feet, and the byelaw above quoted (in the absence of the original cross sections of the canal which I have not been able to obtain) would appear to support this contention, as well as the depth of water at the lock sills, which is in no case less than 4½ feet. To allow of free navigation with boats of this draught the canal would require to be dredged to a depth of at least 5 feet for a width of about 16 feet, in those places where it has now less than those dimensions.

In the report made to the Board of Works in May 1864, after an examination of the canal by Mr. James J. Boylan, C.E., at which time it appears that the traders, &c., would have been satisfied with a draught of 4 feet, the least depth of water recorded is 3½ feet.

As regards harbours, peaving places, and turning places they have no doubt in the cases I have pointed out become practically useless from neglect in keeping them dredged.

Attention is much needed to the state of a large number of the sluices in the lock gates, the waste of water, in consequence of their leaky condition, being considerable. Some also of the lock gates and handles require repair or renewal.

The roadway of the towpaths much needs repair in places; and the way in which the leakage of the boats has been allowed to be endangered by holes in the canal banks, and to be impeded by the growth of bushes at the water's edge, and by occupation gates across the towpath, is most objectionable.

The complaint as to the want of proper warehouse accommodation principally at the Spencer Dock, and, to a lesser degree, at Broadstone, seems amply justified. At other places where warehouses do exist, they have, in some instances, been allowed to fall into a state of disrepair.

Deputations from the Town Commissioners of Mullingar, Ballymahon, and Longford waited on me in the course of the inspection. They sustained the complaints of the memorandists, and pointed out the importance to their towns of the canal navigation being maintained in a thoroughly efficient manner, the being of special importance in the case of Ballymahon, which is 13 miles from any railway station, and of other places on the canal between Mullingar and Longford, which places are more or less remote from the railway. It was pointed out that whereas in former times the journey between Dublin and Longford occupied from 35 to 40 hours with a load of 65 tons, it was now, owing to the bad state of the canal, increased to 50 hours with a load of only 40 tons.

I have, &c.,

C. S. HUTCHINSON,
Major General, R.E.

(B) —ROYAL CANAL.

Board of Trade (Railway Department),
8, Richmond Terrace, Whitehall, London, S.W.
August 23, 1895.

SIR,

I HAVE the honour to report, for the information of the Board of Trade, that in compliance with the instructions contained in the Order of the 3rd ult. I have made an inspection of the navigation of the Royal Canal, the property of the Midland Great Western Railway of Ireland Company, with reference to the complaints as to its condition, put forward by traders and boat-owners using the canal, more especially in regard to the Company's delay in carrying out the works necessary to comply with the recommendations for the improvement of the navigation made by Major General Hutchinson, C.B., in September 1894.

CONSTRUCTION OF CANAL.

This canal was constructed in the last century under the provisions of a charter of incorporation under the Great Seal of Ireland, dated October 1st, 1789, and under certain Acts of George III. In 1789, and subsequent years, one of which Acts, viz., George III. 32, c. 24, empowered the Canal Company to make Docks on the north side of the River Liffey.

In 1846 it was acquired by the Midland Great Western Railway Company under an Act of 1845, Victoria 8 & 9, c. 112, the Canal Company and the Railway Company being afterwards merged into one Company.

By the 34th section of this Act the Company are bound to maintain the canal, and all the works connected with it, in as "full, ample and perfect a manner" as is required by the Act of George III., and it is upon this section that the complainants rely.

In 1870-73 the Spencer Dock, the present Dublin terminus of the canal, was constructed by the Railway Company, who in 1877 obtained an Act authorising the undertaking, entitled the Midland Great Western of Ireland Act, 3rd August 1877. 40 & 41 Vic. c. 139.

In the recital of this last-named Act it is stated that the Royal Canal Company had not exercised the powers conferred upon them to construct "a floating dock of the nature contemplated" by the Act of George III. 32, c. 26, and that the railway had constructed and opened for traffic in the year 1875 docks known as the Royal Canal Dock, and the Spencer Dock; and in section 4 of the Act it is laid down that "the expression the Spencer Dock means the new floating dock within the parish of St. Thomas * * *, which shall be deemed to include the entire dock accommodation situate between the bridge carrying the Great Northern Railway of Ireland across the upper end of such dock and the entrance thereto at the River Liffey."

By this Act also (section 10) the Company were, under certain conditions, empowered to fill up the canal Harbour at Broadstone, the original terminus, and were, among other things, given powers over Lough Owel, the principal source of water supply to the canal.

COURSE AND LENGTH OF CANAL.

The Royal Canal extends from the Spencer Dock, Dublin, to Richmond Harbour, Cleonsilla, county Leitrim, and thence through part of the River Camlin, and a short cut, into the River Shannon, at Tormanbarry, and there are branches from the main canal to Broadstone and Longford.

The length of the canal, as described in the book containing the schedule of tolls and charges and the byelaws approved by the Lord Lieutenant in 1881, is as follows:—

	Miles.	Chains.
From the Great Northern Railway of Ireland Bridge, near the first lock of the canal, to Tormanbarry on the River Shannon	91	0
From Philleshorough to Broadstone	0	59
From Killashee to Longford	5	17½
Total	96	68½

The short portion of canal with lock between Richmond Harbour and the Shannon is maintained by the Board of Public Works.

LOCKS, ETC.

There are 46 locks, several of which are double locks, upon the canal proper, the first being near the Great Northern Railway Bridge at Dublin, above-mentioned, and the 46th being at Richmond Harbour.

The smallest lock is 75 ft. in length, and 13 ft. 3½ in. in width, and the difference of level between the sill and the top of the smallest breast gate is 5 ft. 3 in.

The summit level, which is about 300 ft. above the level of the Spencer Dock, and about 170 ft. above the level of the River Camlin at Richmond Harbour, is about 14 miles in length, from the 25th lock near Killashee, past Mullingar, to the 36th lock at Coolinaboy.

I was unable to obtain any drawings showing the original sections of the canal, but the engineer of the Company has, since the date of my inspection, sent to me a cross section taken at Crosskey, where the canal, owing to a leak, had been emptied of water. This section shows a width of 64 ft. with the original hard bottom sloping regularly from the sides to the centre, where there is a depth of 6 ft. of water, the depth of water at the edges being about 1 ft. With this section there is a minimum depth of 5 ft. of water for 7 ft. 6 in. on each side of the centre.

WATER SUPPLY.

The water supply is principally from Lough Owel, near Mullingar, which lough has an area of 2,500 acres; but there are two other smaller sources of supply, one, a good supply, from the River Rathwire at Thomastown below No. 18 lock, and the other, during the wet season only, from a land drain at Castlegaddy below No. 35 lock.

The top of the overfall at Lough Owel is stated to be 8½ feet above the sill of the graving dock at Mullingar, and on the day upon which I inspected it the level of the water in the lough was 2 ft. 7½ ins. below the top of the overfall.

It was stated that the water has not run over the overfall during the last six years, the water used for the canal being run off as required, through one or more of three sluices, into the channel, about 3½ miles in length, leading to the canal.

Details as to the Lough Owel and River Rathwire supplies are given in a report made by Messrs. Bateman and Hemans in October 1889. (See Appendix.)

SUMMARY OF COMPLAINTS.

The complaints made by the traders and boat-owners may be summed up as follows:—

1. That the waterway is choked with mud and weeds to such an extent that during the dry season the canal boats cannot be fully loaded, and that at all times great expense is thrown upon them by the necessity of employing additional horses to drag the boats through the shallow and woody channel, and by the inevitable delays due to the condition of the canal.

2. That the wider portions of the canal are so shallow at the sides that only at very few places can two fully laden boats pass each other, that the turning places and the passing places, provided on the narrower portions of the canal, are mostly choked with weeds and useless, and that some of the harbours are in a similar condition.

3. That the locks are not kept in a proper state of repair, many of the gates leaking badly, especially through the sluices or racks, some of the hind-racks having fallen out of use, and some of the stop posts or bollards, swing-beams, and heel posts, being in a dangerous state.

4. That the tow path is in many places in a very bad state, both as to the surface and as to the bank.

5. That some of the bridges are too low for highly-loaded boats to pass under.

6. That the wharfrage and storage accommodation which existed at the time the railway company acquired the canal has been allowed to deteriorate and fall out of use, that at many places where it is required there is no such accommodation, and that at Spencer Dock there are not sufficient berths for boats, and unsatisfactory provision for storage.

7. That serious injury is caused to traffic by delays on opening the swing-bridges at Dublin and Longford.

8. That the amount of work performed during the past year to carry out the improvements recommended by Major-General Hutchinson is trifling and of little value.

9. That byelaw No. 5 of those approved by the Lord Lieutenant in relation to the navigation and use of the canal is unreasonable, and is liable to be used in an arbitrary manner.

This byelaw is as follows:—

"No person shall load a vessel on the canal deeper than four feet six inches, or beyond such limits, at either stem or stern, as the officers of the company may fix by public notice."

10. That byelaw No. 3 of those confirmed and allowed by the Recorder of Dublin in regard to the use of the Spencer Dock, presses very hardly upon the traders and boatmen, who frequently have to wait for some time before they can pass between the Spencer Dock and the River Liffey.

This byelaw is as follows:—

"No vessel shall pass from the River Liffey to the dock or from the dock to the river, unless within two hours before and two hours after high-water of the day tide."

INSPECTION.

The inspection of the canal, which occupied four days and part of a fifth day, was made partly from a fly-boat supplied by the Company and drawn by horses, and partly from the bow of a small steamer of 6 ft. 8 in. beam, and stated to draw 4 ft. 10 ins. of water, which steamer went through the canal to Richmond Dock.

I was accompanied on my inspection at different times by Mr. O'Neill, the engineer of the Company, by Mr. T. Fleming, the superintendent, and Mr. Williams, the inspector of the canal, by Mr. Tuite, M.P., and by Messrs. Nooney, Kelly, Kennedy, W. Fleming, McDonnell, Caffrey, Leach, and Byrne, traders and boat-owners.

I was also met by the Town Commissioners of Mullingar, and by traders and others at Killeck, Ballynacreevy, Ballymahon and Richmond Harbour, who supported the statements made by the boat-owners, and urged the value to these places of the canal traffic, upon which Ballymahon and Ballynacreevy, being towns at a distance from any railway station, are specially dependent.

Dealing with the canal under the heads detailed by Major-General Hutchinson in his report of September 1894 the following is the result of my inspection.

WEEDS.

These had during the year been cut throughout the canal, twice in many places, and three times in some, but, although they were in very few places as high as the surface of the water in the channel, they had grown to such an extent as to seriously impede the progress of a boat upon long lengths of the canal especially at the following places: below lock No. 13, above lock No. 14, between lock No. 16 and Spar Bridge near Killeck, between lock No. 17 and Killeck, and in places as far as Newcastle, between Dublin Bridge and the railway bridge Mullingar, below lock No. 26 (Coolinaboy), from lock No. 38 to Castle-godaddy Bridge, from Clonsilla Bridge to Tensilick, from Archy's Bridge to Alley's Harbour, from lock No. 42 to lock No. 43, between locks Nos. 43 and 44 and for half a mile below lock No. 44 to Ballydun Bridge.

The weeds were of many different kinds, and were generally far worse between Mullingar and Dublin than upon the western half of the canal (except at a few places), the former section being so carpeted with weeds that hardly a yard of the bottom of the canal was visible, as it was over long lengths of the latter section.

DEPTH OF WATER.

Making allowance for the levels being somewhat fuller than at the time of Major-General Hutchinson's inspection, the depths recorded by him have been little altered, except at Downs Bridge, Killeck Bridge, and Dublin Bridge, where a little dredging has been carried out. It was stated that there had been some dredging also at Clonsilla Bridge, but just below this bridge there is only 3 ft. of water at one side. In addition to those mentioned by Major-General Hutchinson, I also noted very shallow places between Coolinaboy Bridge and Portlerragh, at Clonsilla Bridge near Enfield, at Ballynacreevy, at Green Bridge, Mullingar, at Clonsilla Bridge, and generally between the 38th lock and Abbeyshrule, at Mulavernon near the 40th lock, between this lock and Tarlickin Bridge, in the Broadstone branch, and at many places in the reaches mentioned above as being especially woody.

Speaking generally, the banks seem to have been allowed to encroach gradually upon the waterway, the sides of the channel being shallow on the greater part of the canal, especially at many of the under bridges, where stones and rubbish have accumulated at the edges.

At a number of places between Dublin and Mullingar I noticed rubbish and scrapings, which had quite recently been thrown out on to the banks and into the canal, evidently from the railway.

HARBOURS, PASSING PLACES, AND TURNING PLACES.

These appear to be in much the same condition as at the last inspection, only the following have been dredged out, viz.—

Mullingar Harbour (one-half).
 Ballynacarrigy—dredging in progress.
 Killybrock lie-byre near Cappagh.

As a matter of fact, most of the lie-byres, passing places, and turning places are useless, and together with the banks along the wharves and some of the harbours, require dredging.

LOCKS.

There is nothing much to complain of in regard to the condition of the walls of the locks, although a number of the joints of the masonry require pointing, but there is great and unnecessary leakage at many of the gates, and especially at the sluices, and several of the gates require renewal or extensive repairs, some of the swing-booms and heel-posts being rotten. The land racks, or sluices, at a few locks are not in working order, some of the gate sluices cannot be lifted, and a few new stop-posts or bollards are required.

The locks in the worst condition are No. 26 (for which new gates are being made), Nos. 27, 29, 32, 34 (where a swing-beam is being replaced), Nos. 35, 39, and 43 (about the worst on the canal, where new gates are ready to fix), and No. 45.

TOWPATHS.

These are in a number of places in a very bad state, the surface for long distances being dangerous owing to holes and projecting stones and slabs of rock, and the banks being worn away.

The worst places are between No. 1 and No. 2 locks, where the bank should be made good, above Barberstown Bridge, at Cappagh, at Clonoury Bridge, at Darco's Bridge, from Ballyrasa Bridge to Keshford Harbour, at several places between this and Dublin Bridge, and through Mullingar to Green Bridge, below the 38th lock, at Clonard Bridge, near Archy's Bridge and below the 41st lock.

The banks have been recently repaired at a few places, the bushes complained of at the last inspection have been cut, and the occupation gates across the towpath have been removed.

A fence overhanging the path at Moy Valley requires to be trimmed up, and near the Green Bridge Mullingar, where it is stated that several accidents have occurred, a road leading on to the towpath should be fenced.

In many places the towpath appears to be used as a public road, and this no doubt leads to some difficulty in repairing it.

WAREHOUSE ACCOMMODATION.

Upon the canal proper the conditions in regard to warehouse accommodation are the same as at the last inspection, but at Spencer Dock two large warehouses have been cleared out and are available for use by the traders.

There are stores at Mullingar Harbour and Ballynacarrigy, but these are not in repair.

There are private stores at Ballymahon and Longford, the former being in use.

Representations were made as to the necessity for stores at Kilscock, and on another site at Ballymahon but no Royal Canal stores have ever been in existence at these places.

MEETING AT SPENCER DOCK.

Upon the day following the conclusion of my inspection there was a meeting at the Spencer Dock, which was attended by representatives of the company and of the traders and of the boat-owners.

REPRESENTATIVES PRESENT.

Honourable A. A. Nugent	}	Directors Midland and Great Western Railway Company.		
Major Cosack				
Mr. G. W. Graces, Secretary.		"	"	"
" T. Kilkenny, Solicitor.		"	"	"
" T. Tattow, Manager.		"	"	"
" Purcell O'Neill, Engineer-in-Chief.		"	"	"
" T. Fleming, Canal Superintendent.		"	"	"
" W. Smith, Goods Agent.		"	"	"
" Nooney, Merchant, Mullingar.				
" Thomas Kennedy, Boat-owner and Trader, Ballymahon.				
" John Kelly, Boat-owner, Kilscock.				
" John McDonnell, Boat-owner, Cappagh, Enfield.				
" John Caffrey, Boat-owner, Summerhill, Dublin.				
" Jos. Leech,				
" G. Byrne, Boat-owner, Cluckstown, Enfield.				
" Campbell for Mr. Lee, Merchant, Longford.				
and others				

OBJECTION TO JURISDICTION OVER SPENCER DOCK UNDER THE ACT OF 1858.

Mr. Herbert Shaw, barrister-at-law, on behalf of the Company, quoting the several Acts of Parliament relating to the Royal Canal and its acquisition by the Midland Great Western Railway Company, which Acts I have mentioned above, argued that the Spencer Dock was entirely distinct from the Royal Canal, and that the Board of Trade had no jurisdiction over the former under the Act of 1858.

He pointed out that the Royal Canal Dock and the Spencer Dock were by the Act of 1877 made one dock, to be called the Spencer Dock, and defined as extending from the Great North of Ireland Railway Bridge to the River Liffey, and that the canal must be considered to terminate at the railway bridge.

In support of this last contention he laid stress upon the table at the commencement of the book of by-laws authorised by the Lord Lieutenant, in which the Royal Canal is described as extending "from the Great Northern Railway of Ireland (Lancaster) Bridge, near the first lock of the canal, and south of Newcomen Bridge, Dublin, to Fermansbarry on the River Shannon."

Mr. Shaw also pointed out that the by-laws for the Royal Canal and the Spencer Dock were under the authority of two different persons, the Lord Lieutenant in the one case, and the Recorder of Dublin in the other, and in regard to the by-laws complained of, he urged that No. 5 by-law, referring to the loading of boats, was reasonable, and was not used as a tit-bits by the Company, and that No. 3 by-law, limiting the time for the passage of boats between the Spencer Dock and the River Liffey, was outside the jurisdiction of the Board of Trade. Mr. Nooney, in reply, stated he would not attempt to argue as to the legal position, but he pointed out that when the canal was originally extended to the River Liffey there was some dock accommodation for the use of the canal traffic, and means of access to the River Liffey, and for this no equivalent had been given, unless it were the Spencer Dock and its lock.

I informed Mr. Shaw that the question of jurisdiction was one to be settled by the legal advisers of the Board of Trade, but that I would at any rate note for the information of the Board the matters complained of at the Spencer Dock, and report as to its condition.

WITNESSES IN SUPPORT OF COMPLAINTS

Messrs. Nooney, Kennedy, Kelly, Leach, Caffrey, McDennell, and Campbell gave evidence supporting the complaints made by the traders and boat-owners in letters and memorials to the Board of Trade, as summarised above, and described what had been done during the past year to remedy the defects pointed out by Major General Hutchinson.

Messrs. Nooney, Kennedy, Campbell, and Kelly also explained the need of some facilities being given for landing and warehousing goods at Spencer Dock, Mullinger, Ballynacarrig, Ballymaben, Longford, and Kilscock, and also for the improvement of the wharf on the Broadstone branch, and the deepening of the branch.

WITNESSES ON BEHALF OF THE COMPANY

On behalf of the Company, Mr. O'Neill gave details of the work done to improve the navigation during the past year, which work comprised:—The cutting of the weeds; the deepening by dredging at Kilscock, Ballynacarrig, Mullinger Harbour (one-half), Kilscock lie-by, Cloonerry Bridge, Old Road Bridge, Downs Bridge, and Dublin Bridge; the cutting of bushes and trees on the tow-paths; the fixing of new gates at the 10th lock, the construction of new gates for the 26th and 42nd locks, and the general repair of the gates and sluices at other locks; the removal of the occupation gates across the tow-path; the repair of the tow-path banks at places; the removal of six derelict boats; the repair of the wing-walls of six overbridges, and the putting in order of the canal stores at Spencer Dock.

Mr. O'Neill also stated that he had received orders from the directors to purchase a steam dredger, which he admitted to be absolutely necessary for the proper maintenance of the navigation.

Mr. Tadlow, the manager of the Company, gave some details of the traffic, and explained the manner in which some of the storehouses at present belonging to the Company at Spencer Dock and other places had been erected by private persons and afterwards acquired by the Company.

CONCLUSION.

The conclusion at which I have arrived after my inspection of the Royal Canal, and having had pointed out to me, at different times and places, the evils complained of, is that there is ample ground for most of the complaints which have been lodged as to the state of the navigation.

It is difficult to ascertain with any degree of accuracy what was the condition of the canal when it was acquired by the Company fifty years ago, and therefore difficult to determine the exact liability of the Company under their obligation to maintain the canal in as good a condition as it originally was, but it seems only fair to assume that, as in the approved by-law it is laid down that boats are not to be loaded deeper than 4 ft. 6 ins., it lies with the Company to maintain the canal with such a depth of water that boats so laden can pass freely along it. This implies that the water-way should be at least 5 ft. deep over a sufficient width for the boats in general use, the largest of which are about 13 ft. in beam, and the deep channel should therefore be nowhere less than 15 ft. in width, with a greater width where necessary to allow two laden boats to pass each other. Clearly this is not now the case, for although I had with me throughout the inspection from Dublin to Richmond Harbour a steamer stated to draw 4 ft. 10 ins., this steamer was only 6 ft. 3 ins. in beam, and it was with the greatest difficulty that it could proceed at several places, notably in the reach above Kilscock, between the 38th lock and Abbeyshrule, and between the 44th and 45th locks, while it actually grounded under Cloonerry Bridge, and was during a great part of the journey churning up the mud and weeds by the action of the screw, and consequently unable to progress except at a very low rate of speed.

Throughout the canal the sides have in most places silted up more than the centre of the channel, and it is therefore easy to understand how difficult it must be for wide boats, even when not loaded to the extreme limits, to be dragged through the shallow and weedy reaches, and what a loss of time and unnecessary expenditure of horse power are entailed. This is also shown by the evidence in regard to the time occupied by the journeys, and the number of horses required now as compared with former years.

Judging also from the very inadequate means provided for the dredging of the canal, and the removal of the weeds, it is almost beyond question that the tendency has been for the canal to become shallower from year to year, and for the passing places to become more and more silted up, and I have very little doubt that the condition of the navigation is worse now than it was fifty years ago, and that having been allowed to deteriorate for many years, the canal is now in such a state that a considerable expenditure will have to be incurred to restore it to what it should be.

Up to the present time the Company appear to have entirely misapprehended the situation, for taking as correct their own statement, by the mouth of their engineer, as to the works done during the past year, it is patent that with the exception of a general cutting away of the bushes, and removal of the gates impeding the towpath, and possibly the provision of three new sets of lock gates, and a little extra dredging at Mullingar and Ballinacorney, the whole of these works have been nothing more than ordinary works of maintenance, and in no sense works of restoration, with the view of carrying out the recommendations made by Major-General Hutchinson as to the improvement of the canal; and the most satisfactory statement made at the meeting at Spencer Dock was that the directors had decided to supersede the present ineffective and uneconomical methods of deepening the canal and removing the weeds, and to purchase a steam dredger to carry out this work.

In support of this view of the amount and nature of the work done, I may state that since the last inspection, a year ago, the increase in the staff employed on the canal is represented by two additional carpenters and one additional labourer, and although credit should be given to these in immediate charge of the canal for doing their best with the means at their disposal, it is ludicrous to suppose that such addition as these could enable them to carry out any extensive improvements.

At the time of my inspection there was no want of water, for at many of the locks it was running over the top of the breast gates; but the waste of water, consequent upon the leaky condition of many of the gates and sluices, is so great that it is apparent that there must be a deficiency in the dry season, when, as I am informed, boats can only be half laden.

For this reason it is most important, that no time should be lost in renewing a number of the lock gates and in putting all of them into a good state of repair, especially the upper or breast gates, which are always used to hold up the water, and which, if must be allowed, are now as a rule in a better state of repair than the lower or tail gates. The provision of new gates at No. 26 lock, and the repairs to those at No. 25 lock will, no doubt, have the effect of maintaining a good head of water in the summit level, but this will not be of much use so long as excessive leakage is going on at any of the lower locks, as water will have to be racked down to maintain the depths in the lower levels.

The deepening of the waterway, and the principal by-ways and harbours, by clearing out the mud and weeds, and the prevention of the waste of water are perhaps the most pressing works, but it is also most necessary that attention should at once be given to the towpath, the condition of which is in many places dangerous. The making good of the bank between Nos. 1 and 2 locks with concrete has, I am informed, been ordered, which is satisfactory, as the banks on this length are about the worst on the canal, but an immediate improvement both to the banks and the surface of the towpath is much needed on many other sections of the canal.

As to the warehouse accommodation at other places than at Spencer Dock, it cannot be denied that at the principal towns and villages served by the canal the provision of storehouses would be greatly to the advantage of the traders, and would probably increase the traffic on the canal, but the erection of buildings have never existed, appears to be a matter entirely for the consideration of the Company, who should, however, be pressed to put into a proper state of repair such stores as are now in their possession, and such wharves as are necessary.

The manager undertook to consider favourably an application made on behalf of Mr. Fee for the improvement of the Breadstone branch opposite to some private stores of Mr. Fee, where it is difficult at present to land goods.

Another matter complained of is in regard to the roadway under three of the bridges—viz., a foot-bridge over the canal at Maynooth, a railway bridge over the canal at Clonsilla Junction, and a railway bridge over the canal at Kilmottrick Bridge, Mullingar. I found that the roadway was about the same in all three cases, viz., 10 ft., and as the last-named bridge was in existence when the canal was acquired by the Company in 1845, and the sanction of the Board of Works was obtained to the erection of the two other bridges, one of which, that at Clonsilla Junction, was inspected and passed by Major-General Hutchinson in 1855, I do not see how this matter can be remedied, although no doubt the loads of turf passing along the canal must be to some extent limited in height.

The delays at the swing or lift bridges at Longford, and at Dublin near the commencement of the Spencer Dock, are, no doubt, partly due to the necessary requirements of the Board of Trade that such bridges must be so locked that they cannot be opened when any signal is off for a train to approach, but care should be taken to delay the passage of boats as little as possible, especially by shunting operations, and it ought not to be difficult to arrange so that boats should be able to pass into the Spencer Dock from the canal somewhat earlier in the morning and somewhat later at night than at present, when the special permission to use the canal during the night prescribed by byelaw No. 70 has been obtained.

The complaint in regard to byelaw No. 5 might, I think, be met by some alteration in the wording thereof. It has always been in force in one shape or another, and so long as it is not used in an arbitrary manner, I do not see any objection to it, provided the canal is properly dredged and weeded, because it is really necessary that in the event of the depth of water being reduced by extreme drought, or from any exceptional cause, the traders and boat-owners should be informed by notice of what is the greatest depth to which they can safely load their boats; but it can never have been intended to mean that the Company should be able, in the event of their neglecting to maintain the canal in a proper condition, to reduce the draught of the boats at their will to any extent they may think fit, and it would be monstrous if it were so construed.

It should be made clear that the power to reduce the draught of the boats by notice is to be valid only during an exceptionally dry season, or when from some unavoidable accident the proper depth of the water cannot be maintained.

During the past year the Company has issued no notices reducing the draught, although, as will be gathered from this report, the passage of boats drawing 4 ft. 6 ins. of water has often been impossible.

As to Spencer Dock, the complaints have been to some extent met by the clearing out of the two warehouses, and the manager has promised that the wharf in front of these warehouses shall not be obstructed when it is required for use by the canal boats, so that, so far as warehouses and wharves at this place are concerned, no further action would seem to be required.

The lock into the River Liffey, however, needs repair, for there is a great leakage at the sill of the inner gates, as I myself saw, although, owing to other duties, I was not able to wait to see the lock filled and emptied at dead low water.

The amount of water thus robbed from the canal is very considerable, and necessitates water being raked down from the canal for the benefit of the dock, which the Company contend to be no part of the canal, and this is manifestly unfair.

If the leakage at this lock and the other locks be stopped, I see no reason to doubt that, in a very short time, it will be found practicable to collect such an amount of water in Lough Owel that there will be an ample reserve store to fall back upon during the dry season.

The number of boats trading upon the canal is only 14, or at most 17, so that the amount of water used legitimately at the locks is small, and very much less than in former years, when, as I am informed, there were as many as 50 boats on the canal.

Byelaw No. 3 of those relating to the Spencer Dock, and approved by the Recorder of Dublin, is one which affects other interests besides those of the Royal Canal, viz., the public of Dublin in regard to the use of the very busy street alongside the river at North Wall, and the navigation of the River Liffey, and these interests should be represented, and very careful inquiry should be made, before this byelaw is interfered with.

There is no proper towpath into the Spencer Dock below the first lock, the boats being drawn down by men, and I observe that the path which has to be used by these men is decidedly dangerous as far as the commencement of the Spencer Dock, owing to its roughness and narrowness, and its proximity to the railway sidings, while alongside the dock itself it would appear that it is often obstructed by timber and other materials. These are matters which the Company should be called upon to remedy, at any rate along the side of the canal proper.

The Assistant Secretary,
Railway Department, Board of Trade

I have, &c.,
(Signed) F. A. MARINDIN,
Mayor, R.R.

APPENDIX.

EXTRACT FROM REPORT OF MESSRS. BATEMAN AND HERMAN ON ROYAL CANAL AND LOUGH OWEL.

Dublin, 3rd October, 1859.

To the Chairman and Directors of the M. G. W. Railway Co.
GENTLEMEN,

We have carefully considered the question of how far the Royal Canal is capable of affording a supply of water to the city.

From a measurement taken by Mr. O'Neill about 12 months ago, the quantity supplied was then about 3,400,000 gallons, but it is now supposed to amount to at least 4,000,000 gallons a day.

Lough Owel has, when full, a surface of about 3,500 acres, and it is fed from the water flowing from 5,100 acres of moderately rising ground, surrounding the lake. The outlet of the lake has been artificially embanked and a depth of 4 ft. can be drawn off for the supply of the canal.

Observations on the rainfall at Ballinacmack, a few miles from Lough Owel, show that during the years 1856, 1857, and 1858 the average fall was about 30 inches per annum, and as these three years were probably all drier than usual, thirty inches may be safely assumed as the annual rainfall at Lough Owel.

From this quantity must be deducted that which is lost by evaporation from the ground and taken up by vegetation. In similar districts where observations on this subject have been carefully made there seems to be a pretty constant loss of about 15 inches per annum, as the supply to the lake from the surrounding district. The rain which falls on the lake is just sufficient to supply evaporation from a water surface, and must not therefore be taken into account in estimating the quantity which can be collected.

A register of the maximum and minimum height of the water in each year during the last 19 years has been furnished to us, and from an examination of this it would appear that we would be warranted in taking a greater available quantity than 15 inches, but in the absence of correct data it is safer to be guided by the facts which have been carefully obtained elsewhere.

Fifteen inches on 3,100 would produce a total quantity of 377,695 00 cubic feet or 4,755,052 gallons daily. The capacity of the lake, taking it at 2,200 acres and 4 ft. deep, is 392,040,000 cubic feet and therefore capable of holding nearly 18 months' collection.

The resources of the canal may therefore be summed up as follows:—

	Gallons per day.
From Lough Owel — — — — —	4,775,052
From Rathvive River — — — — —	2,500,000
	<u>7,275,052</u>

The demand on these resources is as follows:—

	Gallons per day.	Minimum daily yield.
For the leakage of 50 boats per week — — — — —	500,000	7,275,052
Evaporation from the canal in dry weather $\frac{1}{10}$ of an inch per day on 300 acres, say — — — — —	600,000	
Leakage and waste, say — — — — —	300,000	
For railway purposes, stations, &c. — — — — —	200,000	
	<u>1,600,000</u>	say 2,000,000
Surplus — — — — —		<u>5,275,052</u>

TONNAGE AND TOLLS for the first half of

1894.			1895.		
—	Tons.	Tolls.	—	Tons.	Tolls.
		£ s. d.			£ s. d.
January - - -	2,389	164 6 9	January - - -	1,743½	98 6 10*
February - - -	3,035½	190 18 9	February - - -	183	9 14 d*
March - - -	3,102	215 0 5	March - - -	2,437	246 6 7
April - - -	3,062	223 18 3	April - - -	3,973	240 15 6
May - - -	3,654	278 16 6	May - - -	3,796½	361 13 4
June - - -	4,078	299 4 0	June - - -	3,411½	220 18 6
	19,121-5	1,378 4 8		14,549½	1,065 15 5

Decrease in 1895—tons, 4,571; tolls, £806 8s. 3d.

* The exceptionally severe weather in these months must be taken into account.

(COPY.)

(c) Shannon Navigation Office, Limerick,
15th September, 1905

As per instructions received on 24th and 28th ultimo, I made an inspection of the Royal Canal, the property of the Midland Great Western Railway Company, from the Canalia River at Richmond Harbour to the River Liffey, including the Longford Branch, Broadstone Branch and Lough O'Connell supply canal.

My object was "to determine in how far its present condition was comparable with a canal in commercial working order such as the Grand Canal," and my report is based on a comparison with the Grand Canal.

The inspection occupied nine days, ending on 5th instant. Soundings were taken from end to end, together with 55 cross sections.

I was accompanied on my inspection by Mr. Percell O'Neill, the railway company's engineer, and by his assistant, Mr. Bresland, C.E. They divided the journey between them.

The total length of the canal and its branches is a little over 27 miles.

The book which accompanies this report gives a summary of the depths in the Canal, the depth of the lock sills, with a short account of each level as to its condition and condition of trackway.

I also attach the 55 cross sections taken.

LOCKS.

The chambers and walls of all the locks are in good order and repair.

LOCK GATES.

With the exception of the 14th lock, the lock gates are in good order and repair.

In many cases considerable leakage takes place at the *Deep Gate* sills when passing barges through the lock. (Many of these can easily be repaired, the levels being short, and the water easily run off). But as a whole they are in better condition than the gates on the Grand Canal.

The inner sea gates at the Liffey are very important, and should be made tight without delay.

Dry dock gates—with the exception of those at the Broadstone branch they are all in bad order and not safe to pass in boats.

DEPTH OF WATER IN CANAL.

From Richmond Harbour to the junction with the Longford Branch the canal is shallow, narrow in section, and choked with weeds.

From the main line to Longford, i.e., the Longford Branch, the canal is shallow, weedy, and has bushes along the edge of the trackway.

From 27½ railway mile post to Enfield Bridge (1 mile) the canal is shallow from 4 ft. 3 in. up; also the canal from the 5th to the 1st lock the section is narrowed and shallow, and loaded boats cannot get within 1½ ft. of the bank to discharge.

The Broadstone branch is also shallow and dirty. The passing places in most cases require dredging. The balance of the canal both in section and depth of water compares favourably with the Grand Canal.

BRIDGES.

The bridges do not appear to have been cleaned out for years, and the accumulation of gravel, etc., hinders the free flow of water through same, although, with the exception of the undermentioned, they can pass loaded boats through freely—Toome Bridge, 34th Lock Bridge, Mill of Down Bridge, Killook Bridge, Bond Bridge, Malton Bridge, Pike Bridge, and Keenan Bridge; these have only a depth of from 4 ft. 3 in. to 4 ft. 6 in.

HARBOURS.

The Harbours all require some little dredging, especially the following, viz.:—Port of Richmond Harbour, the whole of the Longford Harbour, Foyagh Bridge Harbour, the Harbour 1,700 feet above Morox Bridge in Mullingar, and Maynooth Harbour. The five last do not allow of a loaded boat getting alongside the quay to discharge.

No trade boat has entered the Richmond harbour for past two years, and one per week is the average to Longford Harbour, at least, so I am informed.

WEEDS.

The weeds are the worst feature of the canal, making haulage very difficult and heavy on horses. Between the following places the weeds were very bad, viz.:—46th lock and Longford, "Longford" Bridge and 39th lock, 35th and 36th lock half the level, 32nd and 31st lock, 30th and 26th lock, Saunders Bridge, and Forty's Bridge, 18th lock and D'Arcy's Bridge, Blackshade Bridge and Enfield Bridge, and Kilpatrick Bridge and the 12th lock.

TRACKWAY.

The general condition of the trackway is very fair. Long stretches are used by the public, and are therefore injured other than by canal traffic. The following parts are in bad order, viz.:—Richmond Harbour to 46th lock, Longford Railway Bridge to Farragorgan Bridge, Clontarf Bridge to Newtown Bridge, Newtown Bridge to Aghenureagh Bridge, Saunders Bridge to Ballintra Bridge, part between 1st and 2nd lock, or a total of three miles, portions only of these lengths being bad. And under the head of "Poor" a total of 3 miles. The balance is between fair and good. About one-fourth of the total length of trackway has bushes growing along the edge of same; this is extremely hard on horses hauling boats.

LOUGH OWELL SUPPLY CANAL.

The supply from Lough Owell to the canal is in fair order, but the bridges, of which there are nine, are much silted up.

The depth of water under the one nearest the canal was 4 feet 3 inches in the centre and 3 feet at the sides. Under the other eight bridges there was from 3 feet 11 inches down to 1 foot 11 inches, the third bridge having only a depth across of 2 feet to 1 foot 11 inches; the consequence is that the water does not pass freely to the canal.

On examining the water hook at the sluice house I noticed that the "nicks" of (sluice) rack up—on the 29th and 30th ult. was 18 nicks (7 nicks = 9 ins.), on the 31st ult. there were 28 up; and on the 1st and 2nd inst. 8 up; in other words, a goodly supply of water was sent down during the day and night of the 31st ultimo.

DREDGING.

The dredging foreman informed me that her average speed while dredging was four Irish perches per day. The method of landing the mud on the bank might be improved—when I saw her dredging, a portion of each grab-full lifted was allowed to slip back into the canal.

This dredger is not capable of dredging the lock chambers, being unable to lower the grab to a sufficient depth. There is no means in existence for dredging out the bridges.

A sunk boat at Kilcock reduces navigation channel by nearly half and is dangerous to traffic.

CONCLUSION.

The conclusion I have arrived at after my inspection of the Royal Canal is that with the exception of the following lengths, viz.: Richmond Harbour to Longford, including Longford Harbour, the Broadstone Branch, and from the first to the fifth lock; it compares favourably with the Grand Canal as regards depth of water, condition of the locks, lock gates, bridges and trackway; and I believe there would be few complaints if such matters as the following were attended to, i.e., cutting of the weeds, cutting away the bushes along trackway edge, and keeping the water levels up to navigation height or the top rail of the breast gates, the weed cutting being the only expensive item in the three mentioned.

In other words, the traders on the canal would not have anything to complain of if proper attention were paid to the water levels, and to the efficient working of the dredging and weed cutting and other plant at the disposal of the Company.

A large wash seven men at intervals along the canal is the method adopted to cut the weeds, the barge being placed across the canal to stop the floating weeds, but when a trade or other boat comes along the barge is drawn to one side and a quantity of weeds float away; they also escape owing to the shape of the barge, and the inspection boat was much hampered for miles with floating weeds.

I also noticed three gangs of five men each dragging seaweed weeds at different spots on the canal. This certainly improves the appearance of the canal, but does not facilitate haulage of boats, and it was being done at a time when some miles of the canal wanted the weeds cut in the sailing course.

The lock-keepers do not appear to have any definite instructions as to the time they should read the heights of water on the lock sills. Some of the replies given were "7 a.m. or so," "at noon," and "at the end of the day." One lock keeper knew the height of water "by the look of it at the deep gate." Neither have they instructions as to what height they should keep the water to, nor do they appreciate the importance of keeping a fixed navigation level. Most of them said they did not get any instructions, and I gather that the "keeping a full level water" was not considered very important.

The number of men I saw at the weeds, if kept on during the season, would easily keep the canal clean. The men in charge are not carrying out the work in the most economical way.

The number of trading boats met during the inspection (in nine days) was eight at work and one lying up.

I noticed that the water supply to the town of Mullingar is drawn from the Lough Owel supply canal. Mullingar has a population of about 5,000—and between Mullingar and Dublin, Rams for supplying water to private residences are quite numerous, and nearly all the Railway station tanks are supplied by Rams, the waste water of which in most cases does not return to the canal. The quantity of water so taken must be very large.

F. DUDLEY FLATONER,

Inspector,

Shannon Navigation.

15th Sept., 1906.

APPENDIX No. 6.

STATEMENT of the Irish Canal Boat Owners' Association, showing the present conditions of, and the need of improvements required in respect of, certain sections of the Grand Canal, Ireland, supplementary to the evidence given by Messrs. A. A. O'Brien, F. G. Thompson and M. J. Murphy, representatives of the Association on the 10th September, 1918.

1. *Section: Dublin to Sallins*—Improvements needed, viz.—Dredging of the Waterways as well as better mooring facilities and discharging berths, particularly in respect to the circular section, the erection of sheds over the Dry Docks at Portobello, so that boats could be repaired during wet and inclement weather, improvement of locks, so that the larger size of barge might pass through without being damaged by the projecting iron workings which are attached to the gates; cranes and storage accommodation are badly needed at Dublin, Hazelhatch and Sallins.

2. *Section: Sallins to Naas and Sallins to Llewellyn*—These sections of the Canal have not been kept in good order within recent years; they have not been properly dredged, and are gradually filling in with mud, cranes are required at, amongst other places, Sallins, Naas, and Robertstown, and would facilitate the loading of timber, etc. The Grand Canal Co. have neglected to take sufficient care in securing all the water to which they are entitled; many streams in this section have been diverted from the Canal. Result: boats carrying fifty ton loads frequently rub the bottoms, strike against stones, and sink; the first bad place after passing Sallins is the Soldier's Island, and from there up to the last lock, also the whole way up to Naas, and especially the turning place at Llewellyn Mills; from Naas to Corbally a boat cannot take more than thirty tons, instead of fifty as formerly; the entrance to Cook Bridge is full of stones, and a heavy boat is liable to be sunk; the level from Robertstown to Llewellyn needs dredging, especially at Llewellyn lock, which is full of mud.

3. *Section: Rathangan to Mountmellick*—No dredging has been done in this section for years past, and the carrying capacity of barges, plying thereon, has consequently been reduced; the worst stretches, beginning at the Rathangan and are as follows:—viz. Kilticorra Bridge to Unsworth Bridge, distance 1 mile, very shallow and narrow; Ballykelly to Monasteran, distance one mile, very shallow; Foster's Bridge to Portarlinton, distance 2 miles, and Portarlinton Drawbridge, at which place a boat of 90 tons is scarcely able to pass when water is at Summer level; in the stretch of 2 miles from Foster's Bridge to Portarlinton it is impossible for two boats to pass, owing to the passing places being silted up from want of dredging; the water between Mountmellick and Monasteran could be considerably improved by the Trogue supply which feeds the Canal near Mountmellick, and which has a never-failing supply of water, being properly cleaned up and cleared of all obstructions, the importance of this latter point cannot be exaggerated; the want of storage accommodation on this section, for goods carried by horse-traders debars them from carrying many classes of goods.

4. *Section: Monasteran to Carlow*—The Canal from Monasteran to Athy has not been properly dredged for years past, and there is an accumulation of mud and weeds: from Athy to Carlow the navigation is via the River Barrow, and the Canal is particularly bad at Ardagh lock, where navigation is often altogether stopped owing to lack of water; and boats carrying anything over 15 to 20 tons are delayed there all through the summer season; there is a bad shoal at Dumbria, immediately below Ardagh Lock, being soft sand it could easily be dredged; below Levinstown lock there is another bad shoal, and again at Ballytoyle, due to a large tree being left in the river. These have frequently been reported to the Canal Agent at Carlow. There is a considerable amount of dredging required where the Grise runs in, and a shoal has been permitted to accumulate at the point where the Lerr joins the Barrow, at this point motor boats are held up in heavy weather owing to the rapidity of the streams. No dredging has been done at this point for many years past; trees have been allowed to fall into the river and have gathered up mud on the bank opposite where the Lerr runs in, which reduces the size of the channel and increases the rapid, the weir has also been grossly neglected. Much dredging is required at Carlow to permit of boats going alongside stores there with their full complement of cargo, at present they have to be lightened before they can do so, except in very high water. Cranes are needed at Athy and Vinestown, at which latter place there is a large timber trade. Toll on native grain—Carlow to James's Street Harbour used to be 2s. per ton; this has recently been raised to 3s. per ton, with the result that practically all grain is now sent by rail. Tolls to Carlow per ton mile are higher than any other similar station, such as Portarlinton or Athy. Owing to the unsatisfactory methods of the Grand Canal Co., the Carlow Gas Co., Ltd., who have a canal siding to their works have found it necessary to get all their coal, averaging 1,500 tons per annum, from Dublin by rail to Carlow Slacks, where it has to be loaded on carts, and drawn a distance of nearly a mile to their works, other traders there have also despaired of procuring even moderately satisfactory encouragement from the Canal Company to avail themselves of their service, and have either reduced their traffic by boat or discontinued it altogether.

5. *Section: Carlow to Gorebridge*—This section requires more dredging in places; there are a number of shoals on this stretch which would require to be deepened by blasting, so as to enable a full boat to travel in all waters. Cranes are required for loading timber and other heavy articles.

6. *Section: Gorebridge to Waterford*—We would refer you to the evidence of Mr. N. J. Murphy for particulars concerning this section.

7. *Section: Llewellyn to Tullamore*—This section needs an amount of dredging, especially from Killane Bridge to Ballybrittan Bridge, from Killane Bridge to Phillipstown, Watson's level, and at Tullamore; also from Rhede to Edenderry (from locks No. 22 to No. 23, and from No. 26 to No. 27), and at all the bridges.

8. *Section: Tullamore to Shannon Harbour*—This section has not been dredged for a considerable time; its tributaries, which help to keep up the water supply during the Summer and Autumn seasons, also

badly need cleansing. Boats cannot carry a full load during this period. The entire channel of this section, as well as the passing places for boats and berths, are in urgent need of dredging. Mooring posts are required, as is also the cutting of bushes on the bank side, as these obstruct the passage of boats hauling boats. For four miles of this stretch two boats are unable to pass. There is no storage accommodation or cranes in this section.

Signed on behalf of the Irish Canal Boat Owners' Association,

ALGERNON A. ODLUM, Hon. Secretary.

The 22nd day of October, 1918.

To Sir Arthur Shirley Bann, M.P., Chairman,

The Irish Sub-Committee on Inland Transport,

House of Commons, London.

APPENDIX No. 7.

Statement of tonnage carried over the Grand Canal system, including tonnage carried by the Grand Canal Company on Rivers Shannon and Barrow in the year 1918, transmitted by Mr. H. Phillips, General Manager of the Grand Canal Company, after his evidence on 11th September, 1918.

	Tons.
General Merchandise	13,389
Grain	13,981
Flour	11,830
Meal	9,444
Malt	23,781
Indian Corn	8,182
Beans	4,104
Porter	37,503
Timber	16,890
Iron	3,411
Machinery and Castings	280
Potatoes	840
Coal and Coke	37,522
Salt	705
Slates, Tiles, Bricks, Flags	5,750
Ore	1,203
Bacon	738
Hay and Straw	1,915
Hags, Bones and Hides	78
Gum, and Artificial Manure	19,826
Cement	3,447
Oil Rape Cake	2,932
Petroleum Oil	797
Whisky	457
Empties	10,250
Sugar	2,184
Dye Wood	8
Mineral Waters	368
Seeds	301
Furniture	148
Cattle, Sheep, Pigs	125
Turf Mould and Peat Litter	14,800
Sand	23,378
Stone	8,108
Wood	483
Dairy Measure	3,359
Total	304,861

GRAND CANAL COMPANY.

Tonnage of Dublin and Carlow Traffic carried by By-Traffic on River Barrow from 1st May to 30th September, 1917.

1917.	Boat.	Tons.	1917.	Boat.	Tons.
May 10th	74	46	July 4th	39	40
10th	83	41	10th	28	64
12th	22	42	2nd	25	43½
22nd	3	43	17th	3	43
24th	24	44	24th	3	43
19th	22	44	18th	83	40
29th	3	45	24th	30	40
			26th	22	43½
June 22nd	25	45½	17th	22	40
18th	22	43	31st	24	43
27th	83	44			
30th	11	40	August 9th	16	40
30th	3	48	2nd	22	42
1st	68	43	21st	3	46
5th	3	46	14th	3	40
26th	22	48	21st	24	46
4th	22	45	22nd	11	40
6th	24	46			
18th	3	44	September 1st	3	46
11th	3	42	11th	24	47
			12th	22	47

GRAND CANAL COMPANY.

Tonnage of Traffic carried by By-traders on River Barrow South of Carlow from 1st May to 30th September, 1917.

Date.	Boat.	Tons.	—
1917.			
May 1th	77B	35	Graiguen to St. Mullins
11th	53B	24	St. Mullins to Graiguen
14th	947	35	Graiguen to St. Mullins
24th	947	35	Do. do.
21st	15B	32	St. Mullins to Graiguen
19th	947	31	Do. do.
20th	35B	30	Do. do.
June 2nd	947	36	Do. do.
14th	15B	35	Do. do.
20th	15B	36	Do. do.
22nd	947	40	Do. do.
25th	15B	35	Do. do.
July 2nd	77B	35	Goresbridge to St. Mullins
4th	53B	30	Graiguen to St. Mullins
7th	21B	33	St. Mullins to Graiguen
11th	947	36	Do. do.
12th	77B	35	Do. do.
15th	15B	26	Doninga to St. Mullins
17th	77B	31	St. Mullins to Graiguen
21st	53B	26	Doninga to St. Mullins
August 2nd	947	39½	St. Mullins to Graiguen
3rd	77B	42½	St. Mullins to Clackganny
4th	21B	40	Do. do.
5th	15B	32	Do. do.
8th	77B	27	Doninga to St. Mullins
14th	33B	31	Graiguen to St. Mullins
22nd	947	43	St. Mullins to Graiguen
September 7th	Coolawn	36	Do. do.
7th	25B	35	Do. do.
7th	77B	42	Do. do.

GRAND CANAL COMPANY.

Boats passing over River Barrow between Carlow and Goresbridge from 1st May to 30th September, 1917.

Date.	Boat.	Tons.	From.	To.
1918.				
May 1st	22M	24	New Ross	Carlow
2nd	22	28	"	"
3rd	70	22	"	"
4th	18	25	"	"
10th	70	33	Bagnalstown	"
16th	27M	30	Leighlin	"
16th	32	33	Bagnalstown	"
16th	18	18	New Ross	"
16th	43	24	Barnacore	"
21st	39	22½	Carlow	Waterford
22nd	30	29	"	St. Mullins
22nd	18	25	Craiguen	Carlow
24th	944	25	Barnacore	"
24th	32	27	Craiguen	"
June 4th	69	24½	"	"
5th	22	31½	Carlow	St. Mullins
11th	71	30	Craiguen	Carlow
20th	18	27	Clackganny	"
22nd	69	27	Craiguen	"
22nd	32	29	"	"
25th	944	20	Goresbridge	"
July 2nd	18	15	Carlow	Craiguen
9th	44	31	"	"
14th	63	25	"	Carlow
14th	32	15	Craiguen	"
17th	70	18	"	Bagnalstown
19th	969	27½	Allenwood	Carlow
22nd	63	25	Craiguen	"

GRAND CANAL COMPANY—Continued.

Date.	Boat	Tons.	From	To.
July 24th	27M	34	Carlow	Craigie
26th	26M	14	"	"
28th	27M	28	"	"
August 14th	15M	25	Leighlin	Dublin
16th	36	25	"	"
18th	65	25	Vicinstown	Waterford
24th	32	30	"	"
21st	4M	27½	Leighlin	Dublin
23rd	70	27½	Vicinstown	Waterford
25th	16M	27½	"	"
26th	13M	30	Portarlington	"
27th	55	32	Dublin	Craigie
28th	25M	27½	Leighlin	Dublin
29th	63	27½	Vicinstown	Waterford
30th	27M	36	"	"
30th	55	35	"	"
30th	32	57	"	"
31st	41	37	"	"
31st	32B	20	Carlow	Craigie
September 1st	37	37	Vicinstown	Waterford
5th	63	27	"	"
5th	69	37	"	"
6th	7M	35	Portarlington	"
6th	55	37	Vicinstown	"
8th	22	27½	"	"
8th	41	37½	"	"
10th	18	37½	"	"
11th	8M	40	Dublin	Leighlin
13th	7M	33	Craigie	Dublin
17th	41	38	Vicinstown	Waterford
22nd	41	25½	Leighlin	Dublin
23rd	44	37	Vicinstown	Waterford
24th	32	35	Leighlin	Dublin
25th	71	35	"	"
26th	32	34	Dublin	Craigie

APPENDIX No. 8.

NOTES on the Arigna Mining District transmitted by Mr. Wm. Fyfe, B.A., Director, Arigna Mining Company, after his evidence on 11th September, 1913.

The Arigna district comprises the Valley of the Arigna river which runs into the South-West corner of the Lough Allen and the mountains which lie on each side of the valley. These mountains rise to an elevation of 1,000 feet and upwards and are composed of coal measures, which correspond to the lower coal measures of Lancashire, and which overlie the Carboniferous Limestone which occurs at an elevation of about 156 feet above sea level in the Arigna Valley.

The coal measures have a total thickness of from 300 to 1,000 feet and contain seams of coal, shales, beds of ironstone balls, seams of fire clay and layers of hard sandstones (see also appendix). The seams of coal at present being worked lie at an elevation of from 600 to 700 feet, and the coal is taken out through adits driven into the side of the mountain. The best iron ore is found at lower levels and in some places the bed of the Arigna river is formed of a continuous flag of ironstone.

Iron was smelted in this district by means of charcoal up to about the year 1750, and an iron works was carried on at Drumshamb; by Sir Frederick Hamilton, the products of which were carried by water to Limerick and Dublin. The destruction of the forests put an end to this industry.

When the use of pit coal for the production of iron was brought into successful operation in England, three brothers O'Reilly started works in Arigna, using pit coal as a substitute for charcoal. It is stated that "the quality of their productions in pig and bar iron was excellent, but they became embarrassed in circumstances partly from want of means of conveyance of the materials and productions to and from large works, partly from sudden alterations in the money market and consequent vicissitudes of trade, but principally from want of capital at the outset." (See Buchanan's paper on Connacht Coal Field referred to below.)

After the failure of this enterprise attempts were made to revive the iron industry, and a report on the Arigna Iron Works was made in the year 1800 by Mr. John Greave, who describes a blast furnace 54 feet high and 12 feet diameter at the bushes and four overhead Waterwheels for driving machinery and other plant existing at the works.

A subsequent report was made in 1804 by Mr. Thomas Guest of Dowlais Iron Works, Glamorganshire, estimating the outlay which would be required to reopen the Works. These reports are given in full by Sir Richard Griffith in his "Geological Report on the Connacht Coal Field" published by the Royal Dublin Society in 1818, a copy of which is preserved in the National Library, Dublin.

The suggestions made in Mr. Guest's report seem to have been largely carried out by the English Company which took over the mines and iron works in the year 1824, and in 1835 as many as 3,000 men are said to have been employed in the iron works and coal pits of the district.

The iron works were established on an elaborate scale, and the remains of buildings and furnaces finished in cut stone still form a feature of the landscape. The arch of No. 2 Furnace bears the date 1831.

out in the stone work. The remains of two inclines for lowering the coal are still visible, and the roadway of a tramway for bringing coal and ore to the furnaces still runs up the valley for over two miles, and in being utilized for part of the course of the new railway. These iron works were finally closed 80 years ago when the Manager was murdered, and the iron ores have never since been worked there.

It appears, however, that an iron works was started at Croveela, which lies further north between Lough Allen and Belhaven Lake in the year 1862, but the partners in the undertaking failed and it was closed down within a few years.

A Company called the Lough Allen Coal and Iron Co., Ltd., was formed in the year 1873, to work the coal, iron and other minerals on the estate of the late Col. E. K. Tenison at Arigna, comprising some 4,287 acres, of which 640 acres contained coal. The Company, however, never did any work.

The Arigna Mining Co., Ltd., was started in 1888 with the object of developing the coal and other minerals in the district, chiefly in order to supply the Carron and Leitrim Railway, which had then just been completed, with fuel for its locomotives more cheaply than it could be imported from England or Scotland.

This Company has been in continuous operation since its inception and has met with a very fair measure of success in spite of the great difficulties it had to contend with, the coal having to be carted over an extremely bad road with heavy gradients for a distance of from $\frac{3}{4}$ to 4 miles to Arigna Station. The Company has restricted itself hitherto to mining coal and quarrying flags. When, however, the new railway is completed the raising of iron ore and fire clay will become practical, and with improved facilities these industries may become of great importance as the iron ore deposits are very abundant.

Mr. Buchan in a paper read before the Royal Dublin Society, January 4th, 1888, "On the Composition of the Iron Ores at the Connought Coalfield," speaking of the Arigna district states on page 11: "The Ironstone Measures overlying the limestone occupy the lower portions of every mountain in the district. Even in many of the valleys, such as Arigna, where the Carboniferous limestone exists at a low elevation, they cover large tracts.

"The quantity of rich ironstone they contain is enormous—literally in the strictest sense, inexhaustible." Under modern conditions the smelting of iron can only be carried on profitably on a very large scale, and it would therefore be necessary to calcine the iron ore locally so as to increase its richness in iron and then to export it to the large iron works in England or Scotland for mixing with other ores.

The proper classes of coal which exist in the locality will suffice for roasting the iron ore, and for making fire-brick from the fire clay.

Some analyses of the clay ironstone in the district are appended.

CLAY IRONSTONE OF ARIGNA.

Sir Robert Kane (*Industrial Resources of Ireland*, page 135) gives analysis of clay Ironstone from Arigna, being the mean of five different samples.

Protoxide of Iron	51.34
Lime	1.59
Magnesia	1.95
Alumina	0.98
Insoluble Clay	12.82
Carbonic Acid	31.33

100

He says: "As none of these were picked specimens, the average of all of them may be fairly calculated as the material available on the large scale at Lough-Allen, and this contains 40 per cent. of metallic iron."

He states that the loss by calcination should be in average 31.33 per cent and the calcined ore should contain 58.2 per cent. of iron.

Mr. Patrick Buchan, in the paper referred to above, gives very similar analyses (pages 16 and 17) for these ores—

	No. 1.	No. 2.
Carbonate of Iron	73.53	78.92
Carbonate of Lime and Magnesia	11.92	5.88
Soluble Alumina	1.40	1.40
Clay and Silica	11.90	11.75
Organic Matter	1.85	2.05
	100	100
Metallic Iron	35.5 per cent.	38 per cent.

ANALYSIS of Sample of Iron Ore taken from the banks of the Arigna River, made by

Mr. William McD. Mackay at Leeds, October, 1918.

	per cent.
Protoxide of iron	37.30
Peroxide of iron	3.18
Manganous oxide	0.64
Alumina	5.13
Lime	4.80
Magnesia	4.02
Phosphoric anhydride	2.71 (equals Phosphorus 1.18 per cent.)
Iron disulphide	0.96 (equals Sulphur 0.14 per cent.)
Silica	10.76
Titanium dioxide	0.23
Moisture	0.37
Carbonaceous matter	1.04
Carbonic acid, combined water, alkalies (by difference)	30.37
	100
Iron	30.64

The following is the analysis of the ore calcined:—

	per cent.
Peroxide of iron	59.47 (equals Iron, 41.63 per cent.)
Manganese peroxide	0.35 (equals Manganese, 0.67 per cent.)
Alumina	6.96
Lime	6.52
Magnesia	5.46
Phosphoric anhydride	3.66 (equals Phosphorus, 1.60 per cent.)
Sulphuric anhydride	0.47 (equals Sulphur, 0.19 per cent.)
Silica	14.61
Titanium oxide	0.30
Alkalies etc. (by difference)	1.62
	100

Mr. Mackey stated:—

"I consider this a good clayband stone showing a fair percentage of iron; a feature that should give the stone special value is the high percentage of phosphorus. It will yield a pig iron containing over $\frac{1}{2}$ per cent. of phosphorus, which will be excellent for basic purposes. The ironstone loses on calcination, 26.36 per cent."

FIRE CLAY.

The following note on the fire clay of the district is also taken from Mr. Bucken's paper (page 25):—

"A general analysis of the various seams shows the fire-clay of the district to be of very good quality, and well adapted in every respect for making fire-bricks for the construction of furnaces, crucibles, glasshouse pots, gas retorts, etc. It contains:—

Pure fire clay (Silica and Alumina)	84.00
Oxide of iron	1.42
Lime	0.50
Water and organic matter	14.30
	100

As the most injurious constituents of fire-clay are lime and oxide of iron, it will be seen that the quantities of these substances contained are harmless, in addition to the analysis, actual use of bricks has proved them to be of undoubted quality for severe tests by fire." Speaking of the same clay Sir Robert Kane says (page 233): "In the valley of Arigna this bed was found only rarely three feet thick, and of excellent quality, the whole of the bricks used at the iron works by the original proprietors having been made of it, and comparative experiments described by Mr. Weld, as having been carried on in the Laboratory of the Royal Dublin Society, between it and Stourbridge clay have shown it to be not inferior."

COAL.

The Arigna Mining Company is at present working three mines on the south side of the valley, the seam in each case averaging about twenty-two inches in thickness and being worked by means of adits entering the hill with a gentle gradient, shafts being only used for the purpose of ventilation. Previous to now being made to lower the coal by means of inclines or ropeways to the new railway which is 400 feet to 500 feet below the adits. Very little trouble has been experienced with water, and pumping is only necessary in one of the mines and that only to the extent of 400 gallons per hour.

The mines are fortunately also free from inflammable gas, probably owing to the exposure of the seam round the sides of the mountain. It is estimated that the seam yields over 2,000 tons of good coal per acre, in addition to a considerable quantity of small coal, or culm.

The Arigna Mining Co. has also taken a considerable quantity of coal from a seam at Seltanavessa on the north side of the river and it is expected that this mine will be reopened before long as it can easily be connected to the new railway by a ropeway. The coal obtained in this mine is rather more friable than that on the south side of the river, but is otherwise of good quality. In addition to the seams worked by the Arigna Mining Co., an important privately owned mine is worked on the south side of the valley, which is undoubtedly capable of very considerable development.

The following analysis of coal from the Company's mines has been made specially for this report in September of this year by Mr. Wm. M. D. Mackey at Leeds. No. 1 Sample has been taken from the mine nearest to Arigna Station, and No. 2 Sample from the most westerly of the three mines worked by the Company on the south side of the valley.

	No. 1.	No. 2.
Ash	per cent. 7.68	8.44
Sulphur	" 1.44	0.40
Volatile matter other than water	" 17.64	16.52
Water	" 0.78	2.34
Fixed Carbon (by difference)	" 72.46	72.30
	100	100
Pounds of water evaporated by one pound of		
Coal from 212° Fahr. (Weg's Calorimeter)	14.31	13.78
Equals British Thermal Units per lb.	13,841	13,330

These samples were chosen to represent as nearly as possible the average quality of the coal at present being taken out.

Analysis of Samples taken from the mines in the years 1914 and 1915 are also given below.

Analysis of Coal from Arigna Company's Old Mine (intermediate position), made by C. Eyle Jones, Western Testing Laboratory, 1914.

Carbon	-	-	-	-	-	-	-	-	84.13
Hydrogen	-	-	-	-	-	-	-	-	3.86
Oxygen	-	-	-	-	-	-	-	-	3.50
Nitrogen	-	-	-	-	-	-	-	-	0.71
Combustible Sulphur	-	-	-	-	-	-	-	-	0.51
Incombustible Sulphur	-	-	-	-	-	-	-	-	0.29
Ash—less Incombustible Sulphur	-	-	-	-	-	-	-	-	6.26
Moisture	-	-	-	-	-	-	-	-	0.83

100

Analysis of Coal from New Mine (Western Position) made at Messrs. A. Guinness & Sons' Laboratory, November 16th, 1915.

	Specimen 1.	Specimen 2.
Volatile matter	10.34	11.61
Moisture	0.85	0.7
Ash dried in sample	6.5	6.4
Sulphur	0.53	

The fact that the Arigna Mining Company has survived for the past thirty years, and has been able to pay reasonable dividends to its shareholders during the greater part of this period, whereas all previous undertakings in the district failed after a very short existence, may be ascribed very largely to the existence of the railway reaching up to Arigna Station, and now that the line is being extended up the valley an era of prosperity and increased productivity is in view.

The consumers of coal will benefit no less than the Company, as it will be possible to sell the coal at least 5s. a ton cheaper after the cartage has been eliminated.

The analyses given above show that the coal and iron ores in the district are of a high value, and given enterprise, good management, and good transport facilities the district has very great possibilities.

SECTION OF THE ARIGNA COAL MEASURES GIVING THE STRATA IN DESCENDING ORDER.

1. Sandstone flag and shales	60 to 100 ft.
2. Upper Coal (known as Crow Coal)	8 to 12 inches.
3. Dark grey Shales and Sandstone	100 to 200 ft.
4. Coal with sandstone roof	30 to 30 inches.
5. Fireclay floor	12 to 30 inches.
6. White sandstone	25 to 40 ft.
7. Dark Siliceous Shales	10 to 15 ft.
8. Coal strong shale roof and sandstone floor	22 to 40 inches.
9. Yellow Sandstone	20 ft.
10. Grey Shales and thin beds of Sandstone.	40 to 60 ft.
11. Little Coal, slaty	8 to 10 inches.
12. Fire clay wrought at Arigna	3 ft.
13. Grey Sandstone	7 to 15 ft.
14. First great Sandstone	30 to 90 ft.
15. Dark Shales without Ironstone. Ironstone Shales with numerous beds of Ironstone, having an estimated equivalent thickness of 16 to 30 ft. of Ironstone beds	400 ft.
16. Limestone Shales.	
17. Limestone of unknown thickness.	

No. 8 is the coal seam at present being worked.

WILLIAM TAYLOR.

4th October, 1918.

APPENDIX No. 9.

STATEMENT transmitted by Rev. J. G. Digges, Director of the Arigna Mining Company, Limited, in amplification of his Evidence given on 11th September, 1918. Cloonshahr (Lough Ryan, B.S.O.), Co. Leitrim, 12th September, 1918.

The Company's territory extends to 5,034 acres, situated in the mountains on both sides of the Arigna Valley, and they have been for some months negotiating for a large extension of their mining rights.

The Minerals available are—Coal, Iron Ore, Fire Clay, and Flints.

The Coal, the supply of which is practically inexhaustible, is a rich bituminous coal, much superior to Scotch coal for steam purposes, and is also well adapted for domestic use, while for smelting it is scarcely, if at all, inferior to the best Welsh coal. It is largely used by the Cavan and Leitrim Railway Company for locomotive purposes.

Analysed in 1889 by Professor Tishborne, it gave the following percentages:—

Carbon, with Hydrogen and Oxygen	89.40 percent.
Nitrogen	1.55 "
Sulphur	1.20 "
Moisture	1.25 "
Ash	6.40 "

In 1910 it was analysed by Mr. Cyril Fox, Lecturer in Mining, the University, Birmingham, with the following results:—

Moisture	—	—	—	—	—	—	—	1.475 per cent.
Volatile Combustible	—	—	—	—	—	—	—	14.075 "
Ash	—	—	—	—	—	—	—	4.250 "
Solid Combustible	—	—	—	—	—	—	—	79.300 "

"A very small amount of sulphur present, while the calorific power is high."

In 1914 an analysis was made by Mr. C. Lyle Jones, of the West Ham Testing Laboratory, as follows:—

Carbon	—	—	—	—	—	—	—	84.13 per cent.—As dried 84.84 per cent.
Hydrogen	—	—	—	—	—	—	—	5.80 " "
Oxygen	—	—	—	—	—	—	—	3.50 " "
Nitrogen	—	—	—	—	—	—	—	0.71 " "
Combustible Sulphur	—	—	—	—	—	—	—	0.51 " "
Incombustible Sulphur	—	—	—	—	—	—	—	0.20 " "
Ash (less Do.)	—	—	—	—	—	—	—	6.26 " "
Moisture	—	—	—	—	—	—	—	0.83 " "

In 1915 the Cavan and Leitrim Railway Board had the Company's coal analysed as against Allerdale coal—both coals being then in use by the Railway Company. Messrs. Treasne & Dunson, Analysts, Cardiff, conducted the analysis. Arigna coal showed the largest percentage of fixed carbon, viz., 81.30 per cent. as against 78.35 per cent. in Allerdale coal, and the calorific value of Arigna coal exceeded that of Allerdale by $\frac{1}{2}$ per cent.

The iron ore was analysed in 1888 by Dr. Titchborne, and in 1889 by L. S. Jones, of the Sheepbridge Coal and Iron Company, Chesterfield. It was found to yield 57 per cent. after calcination and to have a high market value, especially for the manufacture of Basic Steel, there being a high content of Manganese.

Professor Cyril Fox, Lecturer in Mining, University, Birmingham, reported upon the iron ore in 1910, showing 32.07 per cent. Ferrous Iron and 33.14 per cent. Total Iron.

Sir Robert Kane, in his book, "Industrial Resources of Ireland," pages 134-138, gives Arigna Ore the place of honour above Staffordshire, Welsh and Glasgow (Ordinary); the figures being Arigna, 40.0, Staffordshire, 34.25, Welsh, 36.75, Glasgow, 31.6 raw ore; and calcined ore—Arigna, 58.2, Staffordshire, 50.2, Welsh, 52.35 and Glasgow, 45.8.

There are enormous deposits of iron ore in the district. Many years ago they were worked to a considerable extent, but the lack of haulage facilities killed the industry and the extensive stone buildings are now in ruins.

The Fire Clay has of Insoluble Silica, 90.40 per cent., Combined Silica, 38.32 per cent., Alumina, 26.44 per cent., Magnesia 3.46 per cent. It has a very similar composition to some of the best Clays in England.

The Arigna Flagstone is a kind of millstone grit, very hard and extremely uniform in character throughout. It will not wear to a polished surface. It weathers equally. Its surface absorption is not excessive. Professor Titchborne, comparing Arigna flags with Kilmish flags, "Ferrumite" and Calthness pronounced the Arigna flags to be the most suitable for ordinary flagging and to have the highest gravity of all the stones examined.

Increase of output. A railway being provided, the output of coal alone can be increased from 12,000 tons as at present to 75,000 tons per annum; and there will be also a large output of iron ore and other minerals. Further, the construction of the Railway will provide additional labour for the mines, as workers can be carried each morning from the neighbouring villages and towns and back again in the evening, thus enabling the Company to take advantage of the labour which would even now be available but for the distance of the mines from populous centres and the difficulties of the present very bad mountain road.

J. G. DUNN,

APPENDIX No. 10.

PROPOSED Scheme for Improvement and Development of River Slaney transmitted after evidence given by Colonel Loftus A. Bryan and Messrs. Wm. Armstrong and Joseph Ryan on 12th Sept., 1918.

To the Irish Sub-Committee appointed by the Parliamentary Committee on Inland Transport.

Mr. Chairman and Gentlemen.—Following the attendance of Deputation, and evidence placed before your Committee of inquiry held at Wexford on the 12th instant, as above, we beg respectfully to place the following review, and statistics, and a report, and plans, &c., prepared by our engineers, Messrs. Kaye, Parry & Ross, Dublin, of the proposed scheme for making navigable the River Slaney between the Port of Wexford and Enniscorthy.

(1) The River Slaney is, in conjunction with the Port of Wexford, the natural economic highway for the produce of the North, East and South East of the county Wexford, and considerable parts of the counties of Carlow, and Wicklow, to the South-west of England and Wales, and for the products of those parts of Great Britain to Ireland. It affords to the industrial effort of those parts of Ireland means of protection against the competition of more powerful bodies at a distance, as it limits the extent to which railways can lower the rates to such customers in order to obtain a monopoly of traffic, and hence prevents the extinction of local sources of employment other than agricultural, with all attendant disadvantages.

It is actually in itself a source of production of a commodity (gravel) of high-class, and daily increasing importance, in view of the vast extension of work in reinforced concrete. Up to the year 1890-1900 there was a considerable amount of water-borne traffic upon the Slaney. Before and in those years, coals or barges of a capacity averaging 50 tons plied between Wexford and Enniscorthy, and goods of all classes besides coal and grain in import and export respectively were carried by them.

The amount of coal thus carried may be estimated at 15,000 tons, and of grain at 5,000 tons, exclusive of general merchandises.

After the opening of the Dublin and South Eastern Railway and its extension to Wexford the traffic of the Port of Wexford gradually diminished. As a consequence, with destruction of harbour revenues the harbour itself has been less satisfactory, traffic on the Slaney has diminished until it has become almost nil; and the Dublin and South Eastern Railway is in a position to dictate terms as to the traffic rates, with the resulting effect of almost total paralysis of local manufacturing industry.

(2) Grain handled for export in Enniscorthy.—There are at present ten merchants engaged in the export corn trade in Enniscorthy. The total amount of grain leaving the town annually is 23,000 tons.

This merchandise is now entirely carried by rail. Were a water-way open to the town the saving to the community would be very considerable, great progress might be made in storing, grading, and marketing corn, and the impetus given to agriculture might be considerable.

(3) Coal and General Merchandise.—The imports of coal, annually, amount to 18,495 tons. There are seven recognised coal merchants. The coal, with the exception of a very few special cases, is now carried by rail. Were water carriage open, the saving in cost of carriage would be at least 3s. 6d. per ton, or a total of £4,523 annually.

The carriage of general merchandise, once considerable, has ceased altogether. All such traffic is carried by rail at a very considerable loss to the community. The total Imports and Exports is 120,000 tons annually.

(4) Possibility of developments in Existing Industries.—The industries at present existing in the town and neighbourhood are: one bacon factory, with a capacity of some 100,000 sides per annum; two sawmills and woodworking establishments (one co-operative); one carriage builder; three manufacturing saddlers' establishments (one co-operative); one brewery; two mineral water manufactories; one large roller flour mill in the town, and several small mills in the vicinity; one engineering establishment; two foundries, two potteries; one woollen cloth mill; one margarine factory; and one extensive malting. There is not the slightest doubt that every one of these establishments would benefit greatly by the revival of river traffic. With satisfactory river transport, it is probable that considerable saving might be effected in the price of coal for the general purposes of industry. With water carriage to Wexford it is probable that satisfactory business might be done with the West of England, and very much greater activity in the manufacture of tweeds and blankets might result. With cheaper coal and water carriage to Wexford, the local clays—admirably adapted for the manufacture of drainage and sanitary ware—might supply not only Enniscorthy but Wexford (both considerable towns) with great saving to the community. The avoidance of transshipment would have an important effect in cheapening prices. Were the Slaney canalised so as to afford communication with the River Barrow, developments of the greatest value to the whole of Ireland might result.

(5) Promotion of New Industries.—It is impossible to predict the result of a really satisfactory transport system for Enniscorthy. It is the centre of a large and important agricultural district. The spirit of enterprise incidental to successful tillage is only beginning to make itself felt. The manufacture of boot sugar and of industrial alcohol are, at present, not practical, only because capital is not forthcoming. With a large development of the meat industry, consequent on improvement in the Port of Wexford, and increase in the supply of cattle due to better transport, the supplies of manure will be greatly increased and made available at a much reduced figure.

(6) The value of gravel to be obtained from dredging is by no means unimportant. The actual value in previous work has recouped one-fourth the total cost. The use of concrete in all construction is daily growing in importance. The gravel dredged from the River Slaney is an absolutely first-class material for the manufacture of concrete. Cement works exist at Wexford, and will probably develop considerably, and it is by no means impossible that other cement industries may be started.

We remain, Gentlemen,

Your obedient Servants,

Sgd. { PATRICK O'NEILL, Chairman, Urban District Council.
WM. P. CASEY, Hon. Secretary of Committee.

Dated this 27th day of September, 1918

48, Kildare Street, Dublin,
26th September, 1918.

RIVER SLANEY NAVIGATION.

To William P. Casey, Esq., Secretary, Improvements Committee, Enniscorthy.

As requested, Mr. Ross visited Enniscorthy on the 19th inst. with a view to acquiring into and advising your Committee as to the practicability and probable cost of improving the navigable channel of the river Slaney, so as to enable small steamers to trade between Enniscorthy and Wexford, and possibly some cross-channel ports, and we beg to report as follows:—

We have read over the reports of the evidence given before the Committee, but we have confined our investigations to the subject referred to us, viz., the question of the improvement of the course of the Slaney by dredging.

The town of Enniscorthy is situated on both banks of the Slaney, about 15 miles above the town of Wexford, which is built at the mouth of the river.

For many years a considerable traffic has been carried on on the river by means of small sailing boats.

Before the year 1800 a quay wall was constructed on the east bank of the river, and a similar wall was built on the west side about 1835.

These quay walls are about 500 ft. long on the east side, and 1,000 ft. long on the west side. They are fitted with mooring posts and stone steps, and are in every way suited for dealing with a large volume of traffic. If the river were rendered navigable for steam vessels.

We understand that your Committee considered that the depth of the water should be increased so as to allow vessels drawing about 7 ft. of water to come up to Enniscorthy from the sea.

In 1795 a scheme was brought forward by Mr. Browning, C.E., for improving the navigation

between Wexford and Enniscorthy by the construction of a canal extending from a point on the east side of the river a short distance below Enniscorthy to Poolbaragh, about 6 miles further down stream. Nothing, however, appears to have been done, probably owing to the political changes at the time, but in 1832 Mr. Vignoles, C.E., in a report dealing very comprehensively and generally with the improvement of the town and its approaches, estimated the cost of dredging and deepening the river bed at £10,000, and the cost of constructing a canal at £50,000. Very beautiful and complete plans and maps made by both engineers were shown to us, and from them we obtained some valuable information.

Although not acknowledged in any of the documents, it is quite evident that Mr. Vignoles derived the bulk of his information from Mr. Browning, and practically adopted his proposals and copied his plans. The canal scheme provided for a dam across the river, so as to raise the level of still water at the town and down to the entrance to the canal.

The scheme, while affording a ready and effective channel for the larger craft, would effectually block the river passage for smaller sailing boats which might not wish to use the lock.

Applications were made to the Board of Works for a loan of £50,000 to carry out the work, and the Board seemed inclined to grant the money, but for some reason the work was not proceeded with, but the quay wall on the west side was constructed about this time.

The proposal now is to dredge a channel wherever shoal water occurs with a minimum width of about 40 ft. and of such depth as to allow of vessels drawing 7 ft. of water to come alongside of the quays at or near high water of neap tides.

Time did not allow of our making a complete survey and sections of the river bed, but from the levels and observations we were able to take, and with the assistance of the maps which were kindly lent to us by Mr. O'Flaherty, we estimate the cost of dredging the channel, and including the erection of piers or buoys to mark out the fairway, at the sum of £11,212 10s.—eleven thousand two hundred and twelve pounds ten shillings sterling.

We had considerable difficulty in arriving at a figure, owing to the very extraordinary state of the markets at the present time both for materials and labour. For instance, we have ascertained that a bucket dredger that originally cost £10,000 is now valued at and specified to be insured for £27,000, but it is to be hoped that prices may come to some more settled level before long.

We are satisfied that generally speaking the channel once formed would tend to improve owing to the disturbance of the sand by the churning action of the screws, but of course a certain amount of occasional dredging would have to be provided for, as gravel and sand will continue to come down during floods and be deposited in the shoals.

We submit herewith a map of the river and some sections which we have prepared, and on which we have based our calculations.

We do not propose to carry out any dredging below Poolbaragh, as we are assured that there is ample depth of water below that point, except at the mouth of the river at Wexford, where a considerable amount of silt has taken place.

All the bridges below Enniscorthy have opening spans, viz.—

Edenmore	-	-	-	-	30 feet
Killurin	-	-	-	-	30 "
Ferry Carrig	-	-	-	-	30 "
Wexford	-	-	-	-	40 "

ESTIMATE.

143,000 cubic yards dredging at 1/- per yard	-	-	-	-	£7,350 0 0
Four passing places or Lie Byes at £150	-	-	-	-	600 0 0
Pierces or Buoys at 20 positions, 40 at £50	-	-	-	-	2,000 0 0
Engineers' Fees and Contingencies, say 15%	-	-	-	-	1,462 10 0
					<hr/> £11,212 10 0

(Signed) KAYE, PARRY & ROSS,
48 Kildare Street, Dublin

APPENDIX No. 11.

STATEMENT transmitted by the Wexford Harbour Commissioners supplementary to the evidence given by Mr. J. J. Sheppard, Chairman of the Harbour Board, on 12th Sept., 1918.

In order to keep Wexford Harbour navigable it has always been necessary to constantly dredge the Outer Bar, and also the channel leading up to the quays.

In the year 1904, owing to the constant silting of the sands, the Bar became unnavigable, in fact, small vessels of 100 tons or over had to be lightened before they could come in.

In these circumstances the Commissioners had to borrow £15,000 to purchase a suction dredger, in order to keep the Port open; at the same time they had their bucket dredger working inside the Harbour, and at the Quays, which meant a considerable outlay yearly.

Owing to War conditions the Steamer running between Wexford and Liverpool with general cargo was commandeered by the Admiralty, which meant a loss of about £1,000 per annum to the Harbour Board.

The restrictions placed on the exportation of grain, etc., and on the importation of coal have seriously affected the Commissioners' finances.

The result is that they find themselves involved with a debt of over £15,000 to the National Bank, which they are unable to pay—in fact, they are, for the past three years, unable to pay the interest on the loan, and in order to raise money to keep the Port going they had to dispose of their two dredgers.

No dredging was done since 1911, with the result that Galhar and the discharging berths at the Quays have silted up, so that the shipping is seriously interfered with.

The position at present is that we have 15 feet of water on the outer Bar (a depth which has been maintained for the past 6 years) and Galhar so silted up that vessels drawing 10½ feet of water cannot come up to the Quays on neap tides.

From its geographical position Wexford is one of the best distributing centres for the south-east of Ireland, served with two lines of railway alongside the quays, connecting with the Great Southern and Western on the south side, and with the Dublin and South-Eastern Railway on the north side.

The Harbour Commissioners maintain that if the Government came to their aid and carried out the necessary dredging the trade of the port would rapidly increase, and as a consequence they would hope in future to have sufficient funds to continue such dredging as they would find necessary.

They ask that the Sub-Committee on Inland Transport would lay the facts before the Government with a strong recommendation that a dredger would be at once sent to Wexford to carry out this very important work.

APPENDIX No. 12.

MEMORANDUM on the Port of Waterford and its position in regard to the question of Inland Transport, submitted by the Waterford Harbour Commissioners as supplementary to the evidence given on their behalf by Mr. H. J. Poole and Mr. G. A. Wolf on 15th September, 1918.

Harbour Office,

Waterford, 5th October, 1918.

The trend of the Commissioners' enquiry leads us to believe that they consider the increase of facilities at ports offering not only shipping accommodation, but also special advantages as collecting and distributing stations for inland traffic, especially water-borne, to be a matter of national importance, and that in particular it is of importance that such ports should be made suitable for dealing with tonnage of larger size and greater carrying capacity than in pre-war times.

It is also submitted that in view of the depletion of tonnage it is almost equally essential that the time spent by a ship entering port, discharging her cargo, re-loading and again proceeding to sea should be lessened.

This Memorandum has been prepared to set forth the position and the claims of Waterford in this connection, and to suggest what steps might be taken to increase the existing facilities of the port.

As a port Waterford is very favourably situated, both as to its position in Ireland and its proximity to English western and southern ports, and its overseas and coastal trade has always been considerable. Its position as a collecting and distributing centre for inland traffic is exceptional, there being six lines of railway radiating from the port in different directions, with three navigable rivers and a canal. The port has also an excellent cross channel service with steamers trading regularly with Glasgow, Greenock, Liverpool, Cardiff, Bristol, Fishguard, Plymouth, Southampton, Newhaven, Dover, London, Belfast, Dublin and Cork. On these grounds we submit that Waterford has strong claims to your favourable attention and consideration.

It now remains for us to lay before you suggestions for increasing the present facilities of the port and enabling it to deal effectively with the altered conditions foreshadowed after the war.

These suggestions are as follow:—

(1) The deepening of the river by removing portion of the outer bar below Duncannon, making a cut in the inner bar at Checkpoint, deepening the Queen's Channel, and maintaining the depth thus formed by necessary dredging. At present vessels drawing 25 feet of water can only come up to Waterford on spring tides, on neap tides they require to be lightened before doing so, while coasters drawing over 13 feet have to wait for two hours flood. These hindrances affect both the outward and inward traffic and sometimes delay transport to the interior. Even if the undertaking of this work of deepening could be considered as one rightly to be borne by the port, the Harbour Commissioners could not see their way to entertain it in view of the heavy cost and the certainty that the revenue derived therefrom would not meet the expenditure, but since the need for improving suitable ports is a national one it is submitted that the cost of such improvements should be a State charge. If the interpretation of the Commissioners' views set out in the beginning of this Memorandum be correct the argument for State expenditure here would seem to be of great weight, and we would submit that if the maintenance dredging on this work prove considerable it also should be a State charge.

(2) The provision of deep-water quays with cranes thereon.—As to this work we would desire to point out that the existing resources of the port are quite insufficient to carry it out, and that even if revenue were supplemented by the imposition of dues on goods entering and leaving the port, it would be years before the port would be in a position to undertake such heavy expenditure. The most that could be hoped for would be a limited and gradual provision of such quays whereas their provision immediately would seem to be of far greater national importance than if undertaken at a later date when shipping was more abundant and the need for its speedy utilisation less necessary. As to this expenditure, therefore, we would also urge our claim for a State grant.

APPENDIX No. 13.

MEMORANDUM transmitted by the Waterford Chamber of Commerce on the development of the Port of Waterford, as supplementary to the evidence, on its behalf, given by Mr. Frank Nelson, on 15th Sept., 1918.

In compliance with the request of the Committee on Inland Transport asking for a Memorandum from the Waterford Chamber of Commerce showing the necessity for the development of the port from the local point of view, the Directors of this Chamber wish to say that, in their opinion, one of the first considerations would be the removal of the existing bar below Duncannon and the deepening of the river at Checkpoint and the Queen's Channel. If these works were carried out, modern steamers drawing 25 feet of water could come up to Waterford at all states of the tide. Cases have already occurred when steamers drawing over 23/34 feet of water, whose cargoes of grain had been destined for Waterford for distribution, had to be diverted to another port owing to their time of arrival being at neap tides. Several of the cross channel steamers have to wait on their inward and outward journeys owing to insufficient water to cross the shoals mentioned at low water.

Another improvement that is urgently required is deep-water quays. As at present nearly all steamer

and vessels have to discharge and take in cargoes at floating pontoons 80 feet from the quay-edge, which naturally causes delay in discharging and loading these cargoes, as the goods have to be wheeled on hand-trucks or carried from the quay on to the pontoons and then loaded into the steamers. Whereas if deep-water quays existed steamers could come alongside the quay and discharge their cargoes direct on to the quay, and the same would apply to loading. The great saving in time of loading and discharging would, of course, give quicker despatch, and consequently more than likely help to reduce the freights charged on goods coming to this port, as quick despatch of steamers after the war will be of vital importance owing to the great reduction in tonnage. In support of the great saving of time that would be effected if deep-water quays existed we might point out that about six years ago the Waterford Harbour Commissioners built a ferro-concrete jetty about 400 feet long at one of the berths where the Clyde Shipping Company's steamers discharge, which enables these steamers to discharge and take in their cargoes direct from this jetty and goods can be brought right alongside the steamers from the quay. Goods are consequently able to be handled at a considerable saving of time as compared with discharging or loading from the pontoons.

If these deep-water quays were built it would be possible to have a railway line running from the quays connecting with the G. S. & W. Railway at the south side of the river.

Waterford is very favourably situated as a distributing centre for all parts of Ireland; it has river and canal communication to Dublin, and quick and good railway facilities to all parts of Ireland; a large cross-channel trade is done with Great Britain in all classes of foodstuffs, which since the war has greatly increased. This trade, in this Chamber's opinion, is likely to be greatly increased in the future, as Ireland for its size is one of the great food-producing countries in the world. The quick transit of food from Ireland to England will be of the greatest importance in the future owing to the very favourable situation of Waterford. We are within easy reach of the principal markets of England, which have often been proved by the large quantities of perishable traffic that passes through the port of Waterford. All this goes to show that if the existing obstructions of the bar, &c., were removed, with the addition of deep-water quays, the prosperity of Waterford commercially would be greatly advanced.

Our President was present during the evidence given by representatives from Carrick-on-Suir and Clonmel with regard to improvements on the river to these places, and this Chamber desires to support the claims put forward as to the improvements suggested. These, if carried out, should be of great help in relieving the continued delay and congestion caused by the railway company not being able to cope with the amount of traffic that even at the present time comes through the port of Waterford, and would save the great congestion of goods that often occurs on the quays owing to the railway company not being able to deal with the amount of traffic. Any efforts to enable the Suir between Carrick-on-Suir and Waterford to be used for small vessels would receive our strong support as being of great commercial value to Waterford, and would undoubtedly mean much to the town of Carrick, while by canalisation of the river between that town and Clonmel much traffic might be carried without calling on the railway between these towns or between them and Waterford.

The Grand Canal running from Dublin to New Ross where it merges into the outflow of the Barrow and, later, at Checkpoint, into the Suir, brings Waterford into direct touch with inland towns, and steps should, in our opinion, be taken to make it the important waterway it would appear meant to be—but which unfortunately we know it is not—by being energetically worked, cleaned out where required, and equipped with an efficient service of motor and other barges. Not only would it relieve the railways and be availed of for merchandise much more easily handled on boats, but it would allow of many developments in inland towns touched by it but at present cut off in part from convenient traffic facilities with this and other ports and towns.

(NOTE.—The foregoing Memorandum was received at the Sub-Committee's office on 8th October, 1918.)

APPENDIX No. 14.

REPORT by Mr. C. S. Meek, M.Inst.C.E., on QUEENSTOWN HARBOUR handed in by Mr. JAMES PRICE, Harbour Engineer, Cork, during his examination on 14th September, 1918.

16, Victoria Street, Westminster, S.W.

25th November, 1913.

To the Cork Harbour Commissioners.

QUEENSTOWN HARBOUR.

GENTLEMEN:

In accordance with instructions received from your Engineer, Mr. James Price, on 9th October, and confirmed at an interview with him here on 22nd October last, that I should examine and report upon the state of the Harbour entrance and anchorage with reference to the suitability for the reception of very large steamers, I visited Queenstown on 12th and 13th instant.

I proceeded to Cork on the evening of the 11th instant in the direct boat from Fishguard, and entered Queenstown Harbour by the east channel at 8 a.m. on the 12th inst., on the S.S. "Imissarra."

On my arrival at Queenstown the tide was at about half-ebb, and there was a heavy swell coming in from the south-west, it evidently being the result of the gale which, I understand, prevailed off the coast on the previous Sunday and following days.

On the Sunday I understood the "Mauretania" did not enter the harbour, and that it was not possible to put the mails on board her in the roadstead outside Roobe's Point.

I may mention that I have on several previous occasions entered Queenstown Harbour in steamers, and more particularly in the larger mail steamers, such as the "Majestic" and the "Lucania," so that I can claim a fairly intimate acquaintance with the port.

The "Imissarra" when entering the port on the morning of the 12th instant was followed in by the S.S. "Laeona," which came to anchor and took in mails at the lower anchorage.

Subsequently I saw this vessel leave Queenstown at about half-an-hour before low water. As the tide was on the ebb she was lying at anchor with her head upstream. After leaving her anchor she swung round through a half circle in practically her own length without any assistance whatever from tugs or warps.

The "Laconia" has a length of 600 feet on the water line, a beam of 70 feet, and at the time of leaving Queenstown was drawing 29 feet 6 in.

For a vessel so easily handled as the "Laconia" the width of the anchorage is more than sufficient, in fact this vessel could easily have turned in an anchorage of a width of 1,200 feet.

For the sake of comparison I give the dimensions of the "Mauretania," viz.:—length 762 feet, beam 88 feet, and maximum draft of 36 feet, the length over all being 790 feet; while the "Olympic" is 852 feet in length, 92 feet beam, with a maximum draft of 34 feet 8 inches.

On the morning of the 12th instant, I proceeded down the Harbour in the steam launch "Lily," in company with Mr. Price and Captain Usher, R.N., Deputy Harbour Master, and made a thorough inspection of the anchorage and entrance to the Port.

The wind at the time was South-west. Moderate breeze, heavy swell coming into the harbour from the South-west, which decreased as the day progressed. The height of the waves at 10 a.m. was from 7 to 8 feet over the Turbot Bank. Low Water at about 10.45. It will be seen therefore that no things were I had a good opportunity of seeing the harbour at dead Low Water under normal conditions.

When on the launch "Lily" I experimented to ascertain the set of the currents, and took soundings in various places. I also proceeded to seaward of the Harbour Rock and came in through both East and West channels.

On the afternoon of the 12th instant, as you are aware, I attended an informal meeting of the Commissioners at Cork, when I had the advantage of hearing the views of several of the Commissioners present as regards the question of the larger Cunard vessels entering the Port.

On the morning of the 13th, in company with Mr. Price and Capt. Usher, I made a further examination of the harbour and took some more current observations, both above the Black Rock and Corkbeg, and also in the entrance channel below No. 4 Buoy. On that morning the wind was from the N.N.W., with a moderate breeze; there was little swell entering the harbour and as the wind was favourable a considerable number of sailing vessels left the Port. It was low water at about 11.30 a.m. On this day there were no vessels in the lower anchorage, although a large steamer (the "Majestic") was expected in the afternoon.

In my opinion Queenstown—or to give it its proper name, Cork Harbour—is one of the best natural harbours in Great Britain, and I cannot do better than quote a description of the Port as it is given in the "Irish Coast Pilot," by the Admiralty, viz.:—

"Cork Harbour, one of the most spacious and secure harbours in the British Islands, is navigable for ships of large class from the entrance to Passage, a distance of $1\frac{1}{2}$ miles, and it contains space sufficient for the largest fleets to anchor in moderate depths of water, on good holding ground, and is most effectually sheltered against all winds and seas. It is, moreover, easy of access, and from its Western geographical position is most valuable as a rendezvous both for His Majesty's ships and the immense fleets engaged in commerce that continually resort here both for shelter and to await orders as to their final destination on their homeward voyages."

I may here mention that I am familiar with all the larger harbours of the British Islands, and with a number of those on the Continent and in the East, and I can with safety say that there are very few, if any, that are superior to Queenstown in offering accommodation for the very largest class of steamer afloat of all states of the tide.

There are two entrances to Queenstown Harbour, one on the East and the other on the West of the shoal known as the "Harbour Rock." Both these entrances afford easy access to this Port, as they are well sheltered from the South-west, from which quarter the worst gales are experienced. There are no cross currents at the entrances, and the speed of the ebb tide very rarely exceeds 2 knots per hour, so that it is an easy matter for even sailing vessels to make the entrance in almost any weather.

Both entrances are used by sailing craft, but steamers usually take the Eastern channel, as it is more direct, and the leading lights are better defined. By keeping within the line of the leading lights it is impossible for any ship to touch bottom in the roughest weather, unless the drowns say more than 36 feet of water, the least depth in this channel being 39 feet at Low Water of Spring Tides.

The Western channel is deeper than the Eastern, the minimum depth being 42 feet at Low Water. The navigation of this channel is not so favourable for large vessels as the Eastern channel, owing to the Turbot Bank, which necessitates vessels rounding a curve of about 2,000 feet radius in order to clear it.

The Turbot Bank is situated in the channel, about 800 yards above the Harbour Rock, and extends about half-way across the channel at High Water. The Bank consists of sand overlying rock, and has been formed partly by sand and gravel brought in by the sea, and partly by material brought down from the river by the ebb tide, and which has settled on the bank owing to an eddy caused by the projection of the Ban Point Bank immediately above it.

The Turbot Bank could be removed to a great extent by dredging away the sand and gravel, and a great improvement would thus be made in the entrance to the harbour by the Western channel. It is also possible to remove the rock underlying the sand, but this would be a very costly and tedious process, and I do not really think it would be worth the expense of doing so, seeing that a very satisfactory channel could be obtained by simply removing the sand overlying it.

It is not possible to say with certainty, if once this Bank is removed, whether it would make up again or not. I should say that probably it will do so unless the Ban Point Bank were also removed, and whether this can be done depends upon the nature of the material of which it is composed. When the weather permits steps are to be taken to ascertain this.

If siltation does again take place after the removal of the Turbot Bank the accretion will be gradual, and a little dredging occasionally would remove the deposit, so that it would not interfere with vessels using the new channel.

I have shown on the accompanying chart, Plan No. 2545, the Western channel after the improvements now suggested are carried out, and it will be seen that it gives a very favourable approach to the harbour and one which the largest steamers could make use of without the slightest apprehension or fear of touching the ground.

I would point out that where the two curves in the channel occur, the first is outside the Harbour Rock, where there is ample sea room for steamers to pick up the proposed line of leading lights, and the second is above the Harbour Rock, where there is ample width of deep water, so that a large vessel would have plenty of room to change its course without the least fear of grounding.

After the New Western channel were formed it would be necessary to erect a new line of leading lights and also to put down an additional light buoy to mark the western boundary of the Harbour Rock, and to move the Turbot Bank Buoy to the westward.

The improved channel would compare very favourably with the channels up to both Liverpool and Southampton, and for your information I submit with this Report two charts, numbered 2546 and 2547 respectively, with the channels to these Ports shown thereon.

I may remark that the minimum depth at Queenstown at Low Water will be 42 feet in the Western channel, while at Liverpool it varies from 31 to 35 feet, and Southampton Channel 35 feet, also at Low Water.

I consider the approach into Queenstown Harbour, by either the Eastern or Western channel, much superior to the entrance at Liverpool, as it is more sheltered from heavy gales; whilst as regards Southampton, there can be no doubt that the channels to Queenstown are much easier to navigate than that leading from the Solent round Colshott Castle up to Southampton Docks. A glance at the chart will at once make this apparent.

Of the two Queenstown channels, that to the east of the Rock is the best for vessels up to say 750 feet in length and 35 feet draft; for vessels exceeding these dimensions, especially as regards draught, I think the Western channel would be the most suitable. A great deal, of course, would depend upon the state of the weather. With a practically calm sea the Eastern channel would be quite safe for ships up to 900 feet length and drawing over 37 feet of water; with a heavy swell from the south-west it would be safer for vessels of large size to enter by the Western channel, which they could do without difficulty when it is improved.

The lower anchorage, now used by the Atlantic steamers calling for mails and passengers, is situated below Spike Island, and is well defined by buoys and lights. It is 4,000 feet in length, North and South, and varies in width from 2,500 to 1,900 feet, with a depth varying from 38 to 60 feet at Low Water of Spring Tides.

In one place near the upper end there is a small shoal, probably of rock, which has only 35 feet of water over it at Low Water. Having regard to the increase in draught of large vessels I am of opinion that it would be desirable to remove say 3 feet from the surface of this shoal as soon as possible.

The width of this deep-water anchorage is about the same as that in the Mersey, opposite the Prince's Landing Stage, and is amply sufficient for the largest vessels now afloat, provided they have steam power in readiness when at anchor.

A vessel 800 feet long and drawing 36 feet could anchor and turn without difficulty at Dead Low Water in this anchorage, provided she has twin or triple screws, and has ample power at command to go ahead or astern as required.

I have already given an instance of a steam vessel of a length of 650 feet turning at this place practically in her own length, a not unusual operation even with a strong tide running.

A vessel of the large dimensions could also swing with the tide at her anchor at Dead Low Water without steam up, provided the pilot used discretion where he dropped anchor to begin with. I understand, however, that all large vessels coming to this anchorage always have steam power available, and do not remain at anchor for more than 4 or 5 hours at a time.

With a view, however, to meeting all possible contingencies, such as the inability of a steamer to go astern when turning to leave harbour or when swinging to the tide, I should recommend that the width of the anchorage be increased so as to give a clear width of 2,400 feet, or say half-a-mile, with a depth of 38 feet at Low Water for a length of about 4,500 feet.

This improvement would enable a vessel of a length of 900 feet on the water line to swing with the tide apart altogether from any assistance from her propellers.

I would also suggest that landmarks be fixed for the purpose of enabling vessels to drop their anchors in the centre of the anchorage area, and to avoid any risk of touching ground when swinging at their anchors.

I understand from Mr. Price that he has increased the anchorage area by dredging on the west side so as to give an additional width with the full depth of 36 feet below Low Water.

He has, I understand, also attempted some dredging on the eastern side of the anchorage, but the material there is so fine that the dredging made little or no impression upon it, as it appears to have sifted up again as soon as the dredger stopped working. Under these circumstances he did not continue the work.

I agree with Mr. Price that it would not be of much use continuing the dredging at this place, unless there was a reasonable chance of the increased depth being maintained after the dredging was carried out.

As a result of my inspection of the harbour, together with the current observations made by myself on the 13th instant and subsequently by Mr. Price, I am of opinion that an increased area of deep water could be maintained at the anchorage if the volume of water flowing through it were increased.

At present a considerable amount of the ebb tide which comes down through the Eastern channel to the north of Corkbeg finds its way down the harbour through the gut lying between Corkbeg and the Black Rock.

If this volume of water were diverted so as to flow down through the anchorage I think the increased sectional area obtained by dredging might be maintained permanently. This could be effected, first, by filling up part of the gut on the east side of the Black Rock by means of gravel or other hard material which is at present being dredged in the upper reaches of Cork Harbour, and, secondly, by forming a groyne on the top of this deposit so as to make a solid bank between Corkbeg and the Black Rock beacon. This would have the effect of diverting all the water, both on the ebb and flood, from the gut on the east of the Black Rock to the area lying to the westward of the beacon or into the main channel through the lower anchorage.

I understand from Mr. Price that there would be no difficulty in securing the necessary gravel and dumping it in the gut so as to fill it up to Low Water. The groyne or wall on the top of the gravel could be formed either of rubble stone or of concrete blocks so as to raise the level to that of about High Water.

The material to be dredged on the east side of the anchorage could be dealt with either by the dredger "Lough Mahon" or, better still, by a sand pump fitted to one of the large hoppers as Mr. Price has, I understand, already suggested to you.

Should it be found that this groyne between Corkbeg and the Black Rock has not the desired effect in preventing siltation in the increased anchorage area, then the groyne in question could be extended to the westward of the Black Rock so as to further concentrate the ebb tide on the anchorage. This extension is shown on the chart in dotted red lines.

I do not think filling up the gap at the back of the Black Rock, as previously suggested, would have any deleterious effect on the harbour, as it does not mean the obstruction of any water therefrom; on the contrary, it would be merely diverted from one place where it is of no practical use to the anchorage, where it might be of great advantage in maintaining the depth.

I have prepared estimates of what I think it would cost to improve the Western entrance channel by removing the Turbot Bank, and also for improving the anchorage. These are submitted as appendices hereto.

In conclusion I beg to express my thanks to Mr. Price and Captain Osborne for their kindly assistance at the time of my inspection, and also for the information they were good enough to supply me with, and which has been of benefit to me in the preparation of this Report.

I am, Gentlemen,

Your obedient Servant,

C. S. MEIK, M.I.C.E.

16, Victoria Street, Westminster, S.W.,

25th November, 1913.

APPENDIX No. 15.

EXTRACT of the Evidence given on 12th February, 1915, by Mr. JAS. H. CAMPBELL, J.P., Town Clerk of Queenstown, before the Queenstown Harbour Committee, handed in by Mr. Campbell during his Examination on 14th September, 1918.

QUEENSTOWN HARBOUR COMMITTEE—MINUTES OF EVIDENCE, 12th FEBRUARY, 1915.

MR. JAMES H. CAMPBELL, J.P., called and examined.

1348. (Chairman.) You are the Town Clerk of Queenstown. How long have you occupied that post?—Going on for 20 years.

1349. From the first you have taken a prominent position in regard to this question of the Queenstown mails?—I have taken a very deep interest in it.

1350. You were the Organiser and Secretary of the All-Ireland Meeting, which was held in Dublin in 1910 to protest against the action of the Cunard Company?—Yes, I was.

1351. Throughout the notes you have kindly given to us, I see you speak several times of the powerful influences which were at work to have Queenstown abandoned. I want you to tell me what those powerful influences were, because we have not yet come across them in our inquiry?—When I say "powerful influences," I mean powerful influences according to my opinion. It was an open secret at the time the mails were going by Queenstown that influences were at work to have the mails delivered at Fishguard.

1352. Whose influences were those?—I would naturally assume it would be to the interest of the Great Western of England Railway to have the mails carried that way and landed at Fishguard, as against being landed at Queenstown, because they would have an absolute monopoly then of the carriage of the mails and passengers from Fishguard.

1353. Is there any evidence of the influences being exerted?—I have no direct personal knowledge of that except the prevailing opinion in Queenstown shipping circles to that effect, and amongst those who have been supporting the Queenstown route.

1354. You understand this whole difficulty has arisen out of the action of the Cunard and White Star Companies. Is there any reason to suppose that the Great Western Railway, or Fishguard, or any other influence of that kind, would have any effect on those two great shipping companies?—I do not assert that it had anything to do with the desire of the White Star Company to give Queenstown the go-by, but I am certainly of opinion that the Cunard Company were in collaboration, if I may so put it, with the Great Western Railway Company towards that end. I may be in error in saying what I am saying now, but I understand, at least I was led to believe, there were directors of the Cunard Company who were also directors of the Great Western, and that it would be to their mutual interest to have the mails landed at Fishguard.

1355. But you cannot give us any evidence of any kind of such influences having been brought to bear, and as you see from the evidence already given, so far as we know the cessation of the call at Queenstown was due entirely to the action of the two companies on business grounds as much as anything else?—I cannot agree with you on that, because I know that before the question of anything in the way of risk was put forward by the Cunard Company as a plea for their not coming into Queenstown, the ships were going to Fishguard, and gave Queenstown the go-by on the eastern route.

1356. You have made a study of the operation of the present system over a period of 11 months?—Yes.

1357. And you say that it was promised that there should be compensation for the cessation of the call at Queenstown by the earlier delivery of the mails in New York. You say that was a promise?—Yes, it was given in the Cunard Company's letters to the Postmaster-General.

1358. And was the result of your enquiries to show that the promise was not fulfilled?—That is so.

1359. You have given us a very interesting table here which gives the arrivals, or rather the time of delivery of the mails in New York. I suppose we may take it that is correct?—It is absolutely correct; I have the originals here from the New York Post Office if you desire to see them.

1360. Then you say that those times of delivery are later than they were before?—Not later; they were delivered at practically the same time.

1361. Then the point is that there is no improvement—no earlier date of delivery?—There is certainly no improvement as regards the distribution of the letters in New York, and there is a decided loss at our side, that is on the British side, inasmuch as the letters have now to be posted on the Friday afternoon as against Saturday when the despatch of the mails was by the Queenstown route. You will understand that while the mails were being sent from Roston via Holyhead and Queenstown it was possible to post letters in London up to 9 o'clock on the Saturday, and, in fact, it used to be up to 4 o'clock at Roston Station with an extra stamp. From the various populous centres throughout the country it was also possible to post on Saturday forenoon, and such places as Glasgow could post in the forenoon on Saturday. And for Ireland, taking Belfast, which is an exceedingly important centre of industry with a large trade connection with the

Sates, it was possible by the Queenstown route to have letters for America, if sent by the Cunarders on the Sunday morning, posted in that city on the evening of Saturday. Now under the new arrangement of the sailing of the Cunard steamers at 2.30 on Saturday from Liverpool, letters have to be posted on the Friday evening. Of course, it might be said that letters may be posted up to midnight in London, but it is absurd to speak of midnight on Friday, because there are no business men, merchants or others, in their offices at midnight, and I take it the ordinary business hours would be, say, 4 or 5 o'clock. So that making a comparison of the two mail schemes, we have the Queenstown route when it was possible to post up to the forenoon of Saturday in some distant parts of Great Britain, and in others up to the afternoon of Saturday, and in Ireland up to Saturday night, but now under the new scheme of despatching the mails, letters must be posted in general about 30 hours earlier except in a few places. Therefore, although the mails are distributed in New York at practically the very same hour as before the change, there is the loss I have mentioned of the 30 hours earlier posting at this side. That is why I say there is no such compensating advantage as was offered at the time the Cunard Company were trying to get Queenstown omitted as a port of call.

1362. You know under the latest arrangement the mails can now be posted, without a special fee, up to 7 a.m. on Saturday morning in London, and with an extra fee of 1d. up to 7.30 a.m., so that would knock off a certain amount of this large delay which you say has been incurred?—I do not see where the advantage comes in from the business standpoint; there is an extension of hours by what you say, but it is no concession to business men, because what business man will be in his office on Saturday morning at 7 o'clock? I hold that it is not a concession to business people.

1363. You are now advocating the claims of the merchants in London, are you not? You are saying it is the business people in London who are suffering by the non-completion of this promise?—That is just one phase of the question.

1364. We will deal with that first. Is it not rather strange, if this great grievance exists among the business community of London, that no one has come forward to bring it before us? Must we not rather gather from that that no disadvantage is felt?—I am not responsible for the arrangement of witnesses or for the bringing of witnesses here.

1365. No, but you represent to me very strongly that very grave inconvenience is caused to the business community in London. To that I say, if this grave inconvenience was ceased, surely we should have had some representation of it—surely everybody would have been up in arms at once?—I venture to suggest that the thing is not generally known and that may account for it. I may say I read some time ago, very shortly after the Postmaster-General had announced his intention of having the mails embarked altogether at Liverpool, an article in the "Birmingham Post," which pointed out that the new arrangement was bound to entail great inconvenience upon the business community of London, because it said that Friday was an exceedingly busy day already, it was the day for posting letters for India, and letters which were delivered in London on the Saturday morning according as Southampton and Plymouth could not possibly be replied to under the new arrangement, and therefore it was bound to be most inconvenient to London merchants. I can prove that to demonstration in a few simple words. It is clear that any letters intended to be sent by the Cunard Line must be posted within business hours, and therefore I am obliged to adhere (notwithstanding what your Lordship has said) to the hours I have submitted to you in my statement, that is, that letters intended to be sent by the Cunard Steamers must be posted on the Friday night. Now I have before me here a Return obtained from the General Post Office, London, showing the dates and hours of distribution in the City of London of letters received from America by the steamers of three lines, the American Line—the line which flies the American flag and which brings an enormous mail, these being subsidised steamers—the steamers of the White Star Line, the "Olympic," "Oceanic," and vessels of that class, and also the steamers of the Hamburg-America Line, the "Imperator," and others. This Return is for the months of March, April, May, and June, four months, a sufficiently long period to test what I am going to refer to. If you will look at this Return, it shows that 23 mails were delivered in London on the 15 Saturdays included in the period from 7th March to 13th June, 1914, showing that double mails were delivered on 7 out of 15 Saturdays, and yet the extraordinary fact remains that, owing to the abandonment of the call at Queenstown, it was impossible to send a reply from London for four days from the date of the receipt of such a vast amount of correspondence. This is absolutely incontestable, my Lord. On the other hand, if the mail service from London on Saturday afternoon via Queenstown had been continued, the replies could have been sent on the day when the American correspondence was received in every instance except one, as practically all the incoming mails from America were despatched for distribution from the London Post Office at 7.15 a.m. I will not trouble you with all the names of the steamers in the Return, although they are given, but the dates and the hours of the distribution of the mails in London are there, and these incontestably prove the inconvenience the people of London suffer under by the fact of not being in a position to reply to the American correspondence received in London on Saturdays until the following Wednesday morning. There is no getting out of that.

1366. Our point on that matter is that we have no evidence whatever that anybody in the City of London or in any of the mercantile cities of England feels any grievance; the question has not arisen, and therefore would it not be better for you to confine your plea to the grievance Ireland is suffering from? I think it is inconceivable, knowing that this Committee is sitting to investigate the matter, that we should not have had representations from every great commercial city in this country if they were feeling the state of circumstances you have so well described. Would it not be well now to tell us the grievance that Ireland is suffering from?—I have not, during the period I have been interested in the mails, confined myself to dealing with it from purely the Irish standpoint. I have dealt with it all along from the standpoint of Great Britain as well as Ireland, and I do that simply because I have the knowledge that the Queenstown route was advantageous to the commercial and industrial interests of Great Britain just as well as it was to Ireland. I was not aware that the question was to be, in so far as I was concerned, limited to evidence in connection with Ireland alone. I was led to believe it was open to me, as one who has given some consideration to the question of the American mails, to submit anything that would in justice and in truth prove that the existing arrangements for the delivery of the American mails in America sent from Great Britain have absolutely failed to satisfy the reasonable requirements of business people.

1367. When the reasonable requirements of business people are not satisfied, business people in most countries, and I think, especially in this country, generally make strong representations about it, do they not?—I would imagine it would be to their interest; I grant you that. But they are not aware of the failure and do not bother to inquire.

1368. Going back to Ireland, as regards the Irish mail question, first, what have you got to say as to the suffering of Ireland from the cessation of the call?—I cannot exactly say that we are suffering, but the grievance of Ireland have been so frequently put before Englishmen, that I am leath to add an additional one to the list. At all events, I think, my Lord, if you have patience with me, I may be able to prove to you that the stoppage of the call at Queenstown for the embarkation of the west-bound mails by the Cunard steamers is certainly a great grievance as far as Ireland is concerned. I desire to refrain from cluttering my evidence with too much detail as to Ireland's loss in being deprived of the direct mail service with the United States, which it has had the advantage of for a period of half a century, and which was of special utility to Belfast and its neighbourhood owing to the large export trade from that progressive city to America, the annual value of which I understand on the authority of the United States Consul there is £4,000,000 in textile goods alone.

1369. Considering the great value of this trade, has there been any strong representation from Belfast as to the inconvenience?—Yes, at the various meetings we have held in Ireland in connection with it we had in attendance and speaking, the Lord Mayor of Belfast. He spoke to the first resolution, and we had also a large manufacturer there, Mr. Lindsay, who I think is Vice Chairman of the Belfast Chamber of Commerce, on another occasion, and there were other gentlemen, but those two occur to me just now.

1370. Has the Chamber of Commerce of Belfast, which I suppose represents commerce and industry in Belfast, made any representation dealing with this question?—They sent three direct representatives to speak at this meeting showing the inconvenience of the new arrangement to Belfast.

1371. Individuals spoke, but has the Chamber of Commerce, as a body, protested?—They have protested, and as the result of their protest, I understand the Postmaster-General arranged some time ago that the "Anchor" steamers, bound from Glasgow, should call at Moville and embark the Friday mail there. I might state now, on the authority of a Belfast merchant, that that service does not meet the grievance, because, to use his own words, the steamers are slow and there is no advantage. The mails have to be posted by these steamers on the Friday, and if other letters were posted via Queenstown, on the Sunday, they would be delivered in New York before the letters posted in Moville by the slower steamers. That service has been given to them by reason of the complaint.

1372. The Moville service, you say, does not and would not satisfy the Belfast people?—No, owing to the fact that the steamers are slow. The trade of Belfast is enormous, and I find here (this is a statement from Mr. Miller, the American Consul) that the Port of Belfast ranked eighth of all ports in the world in its exports to the United States, so that from that statement it will be evident that there must be a vast amount of correspondence between Belfast and New York.

1373. Could you give us the time lost from Belfast to New York?—As regards the facilities for sending letters to America, Belfast formerly had up to Saturday evening, Dublin and Cork could post up to Saturday night, and Queenstown as late as Sunday morning. This is now all changed.

1374. What is it now in Belfast?—It is necessary to post in Dublin and Belfast on Friday evening and in Cork and Queenstown about 2 p.m. on the Friday, and in the West of Ireland letters must be posted on the forenoon of Friday. The injustice of this arrangement to Ireland is best demonstrated by stating that the Cunard mail steamers pass within a few miles of Queenstown on Sunday mornings bearing letters for New York, posted 40 hours previously in Queenstown, Cork, and the South of Ireland generally.

1375. As matters now stand, Belfast and London are practically on all fours?—They are as regards the hours of posting.

1376. So that Belfast is not in a worse position than London?—Practically not in that respect.

1377. I want to get to the actual facts of this and the real differences. Have you seen the evidence of Sir Alexander King on page 7 beginning at Question 131? He makes it clear that the Post Office wants the call at Queenstown if it can get it. "From the point of view of the Post Office, the call at Queenstown is desired." You see that the Post Office wants the call at Queenstown?—I do see that.

1378. You see also that there is no prejudice whatever against Queenstown on the part of the Post Office, in fact the Post Office representative says that it gives an advantage?—They admitted the advantage; that is right.

1379. And of course he also says it gives a greater advantage to Ireland than it gives to England?—That is so.

1380. Now the whole question is this: The Post Office cannot get this service; the Post Office, when the existing contract was declared off, invited tenders for three courses, of which one was the call at Queenstown, and not one single tender was received from any shipping company in this country for any course which involved the call at Queenstown. Now what I want to ask you as a practical man, is, what is the Post Office to do?—What you refer to deals purely with the White Star contract.

1381. I am dealing with the existing situation, which is that the Post Office has tried to get a contract by inviting tenders and cannot get one?—That is as regards the White Star mid-week mail; it does not affect the existing contract with the Cunard Company which runs until 1927.

1382. The existing contract as regards the call at Queenstown has broken down as you know; that is the cause of all our trouble?—Exactly.

1383. That has broken down, and the legal advice given to the Post Office and to the Government is that the enforcement of the call at Queenstown is not possible. That being so, there is no means of getting what you want out of the present contract. Then comes in the question of another contract, which, as I say, the Post Office has tried to get and has absolutely failed. What is the Post Office to do?—Before answering that question, I would like to know what were the terms contained in the tenders issued by the Post Office. If you had those so that I could see them I might answer the question, but without them I cannot.

1384. I am afraid I cannot tell you what the terms were?—I cannot tell unless I know what they were, and whether they had reference to the speed of the steamers, and things of that kind.

1385. I can tell you a little about it from Sir Alexander King's evidence, and that is that the lowest speed was to be at 17 knots, and the highest was 20, but he said that they might substitute occasionally steamers of 15 knots whenever one of the fast steamers had to be laid up for a short time, so that you see those are not very difficult conditions?—No.

1386. And as I told you, as a matter of fact, no tenders were ever sent in. What are we to do?—I can partly explain why tenders were not received from the White Star Company.

1387. They were not received from any company!—If you will allow me to refer to the White Star Company, I would like to say that the company were just terminating their contract, as it ceased in August, 1914. I am quite sure that the White Star would have been pleased to renew that service by their steamers if they were sailing from Liverpool, but they had no steamers of the 20-knot speed required, which would enable them to enter for a contract from Liverpool via Queenstown and New York. It is quite true that the fast White Star steamers were labouring under a disadvantage in having to come from Cherbourg to Queenstown. The people of Queenstown and Ireland generally are not so unreasonable as not to admit—and they have admitted, and I now admit it, my Lord—that it was quite a disadvantage to the White Star Company that they should be called upon to send their steamers from Southampton to Cherbourg, and then come out of their course right up to Queenstown for the mails. We admit that was a grievance on the part of the White Star Company, and they were justified in seeking to be relieved from that contract. Hence it is not unreasonable to note that the White Star Company did not put in a tender for the renewal of that service. It would be unfair to them; it was a disadvantage to them unquestionably to have to come out of their course, involving a loss of from six to eight hours from Cherbourg to Queenstown.

1388. You admit the practical difficulty in which the Post Office and the Government find themselves, and there is no solution I can suggest. You cannot force any steamship company to do what you want, if the steamship companies will not tender for any contract which includes the condition which you wish enforced, what is to be done?—Of course, under the terms set out there in the tender, the speed of the steamers is not very excessive, and I do not know of any reason why the White Star steamers sailing from Liverpool via Queenstown for New York, having a speed in excess of 17 knots, did not tender for the mails.

1389. Supposing a contract had been taken up for steamers with a minimum of 17 knots, that would not have placed you in any better position than you are in now. The delay in crossing the Atlantic would have more than made up for the delay you have explained to us, which arises in omitting the call at Queenstown; you would not have been in a better position with the 17-knot steamers!—I think it would be a mistake to have the mails carried in a 17-knot steamer, because you could give the mail to a steamer of 17 knots on the Thursday, and then starting with a steamer at 24 knots from Liverpool on the Saturday she would overlap the other and there would be no advantage from the business standpoint. I may add that this has frequently occurred.

1390. What you want is a steamship service of from 23 to 24 knots; that is what you want!—If possible.

1391. That is what I cannot see any practical way of getting for you at the present moment!—The only thing which occurs to me in reference to that is this: that the tenders were put in some time in August, and as we are aware the war was declared in July some time, and whether the declaration of war at that time had anything to say to the lack of tenders being sent in I do not know, but it strikes me that it may have had something to do with it. I do not see any reason myself, speaking as a person of some Irish experience about the mails, why the Cunard Company might not have put in a tender for that mid-week mail with the steamers they have. They have some steamers such as the "Carmania" and "Carena" which could run an excellent mid-week mail, and give 18 to 19 knots an hour. I think the reason probably may be found in the fact that there was a declaration of war in July; I can only put it down to that and the probable dislocation of Atlantic traffic.

1392. Then you admit that the only possible course open to the Post Office is to issue tenders; there is nothing else for it!—That is the usual course.

1393. And if those tenders are not accepted by anybody, nothing further remains that the Post Office can do!—That is so, that is as regards the mid-week mail on the Wednesday, but that has no bearing on the other, the more important one we are now considering, the Saturday mail. That is a distinct thing altogether.

1394. That can only be governed by the acceptance of tenders at certain terms!—Yes, that is right, but I think we do not quite understand each other. What I mean to say is that what we have been discussing now is a tender dealing purely with the mid-week mail, that is to say, the mail that was embarked at Queenstown on the Thursday. What, I take it, the Committee is more directly concerned with, is not so much the mid-week mail as the Sunday mail, the Cunard contract mail. That is the question I came directly to discuss.

1395. If you have got to get a certain call at Queenstown, that must be included in some tender which must be accepted by some steamship company!—That is quite clear.

1396. We have had evidence that the general loss of time in the call at Queenstown occupied from 5 to 6 hours. You say that is not so!—I do.

1397. And you make out the actual delay averages only 2 hours 57 minutes and 40 seconds. I want to know if that difference in our evidence can be reconciled. When do you date your time from!—From the official hour given of the arrival of the steamer.

1398. What constitutes the arrival of the steamer—passing Roche's Point?—My return here does not state definitely whether it was the passing in of the steamer at Roche's Point, or whether it was when the tender got alongside, but I take it that my time is the time when the ship arrived off the harbour, the usual hour, because these returns I have got here are taken from the ordinary hours of arrival which the Cunard Company publish in the newspapers, and I take it that it must have been the arrival of the ship practically off the port, and not when the steamer came to anchor in the inner harbour.

1399. You see the time the captain of the ship and the steamship company would reckon would be from the moment they slackened speed coming off Queenstown Harbour, until the time when they have done everything inside the harbour, turned, and got up their full speed on their course to America, so that probably their statement is right that the captain loses 5 or 6 hours, but the time actually occupied in the harbour may average only 2 hours 57 minutes and 40 seconds. You may both be right!—Two specific times are taken both at this side and at the other side of the Atlantic. The Ambrose Channel Lightship is taken as the time of arrival in New York, and here it is at the Dumot's Rock Lightship. The latter would not be taken on the west-bound passage but on the east-bound passage. I think you may take it that my hours are absolutely correct, and I would not put them forward if they were not. The reason I deal here with the question of the delay at Queenstown is that I notice that Captain Charles, in his evidence, stated, I think, that the loss of time averaged from 5 to 6 hours. The ordinary man in the street, or business man, reading that statement would come to the conclusion that that 5 or 6 hours was actually spent in Queenstown waiting for the mails.

1400. That is not what Captain Charles meant at all!—But the ordinary man in the street would take it in that way.

1401. I do not think the Committee read it in that sense!—I know it has been frequently stated by persons writing to the Press in connection with the delays at Queenstown, the vexatious delays as they are called, that they averaged from 5 to 7 or 8 hours. I have often had to combat that myself in various ways, pointing out that it was utterly fallacious. As regards the delays, the Cunard Company appeared to feel more the loss of time as far as its two big ships were concerned, than the loss of time of the smaller vessels. Of course, these ships being more expensive to run, the loss of time means a great deal of expense to them. I have nothing to say against the Cunard Company, who try to do the best they can for their shareholders—that is what any company would do—but I wish to add that while it was quite right that they should try to do all they possibly could to shorten the delay at Queenstown, I cannot quite acquit the company of being responsible for making the delay a little longer at Queenstown. An arrangement was entered into with the postal authorities to accelerate the arrival of the Sunday mails. The mails were in the habit of arriving about 7.15, and the acceleration, which cost a little more, provided that the mails were to arrive at 5.15 or 5.20. That was a saving of two hours. The result of that was that while that was in operation the calculation I have made shows that the actual loss of time by the call at Queenstown, for the period I have set out here, was simply 3 hours and 9 minutes.

1402. You would not be prepared to say that the actual loss as measured by the Company (that is to say, from the time of slackening speed until the time of making up full speed again) might not be as much as Captain Charles stated?—No, that would occasionally happen, but it would not be taken as the average, and that is why I want to give it an absolute contradiction. It could not be taken as a fair average; it would be unjust to say it.

1403. You are not able to tell us that you have taken your times from the moment the big ship slackened her speed?—I have taken it from the arrival of the ship off the harbour when the Cunard Company officially notify her arrival. I cannot go by anything else, and think that ought to be good enough. If through fog or any other reason the captain of a ship was obliged to slacken speed by Bellycotton Light, it would be unfair to take that as the arrival of the ship at Queenstown. There must be some specific point at which the ship should be timed, and I take the official times of the Cunard Company.

1404. When she turns to—When she arrives off the harbour.

1405. When she turns to go in?—Possibly it may be that, at Roche's Point.

1406. When she anchors and the pilot goes out to her?—No, I would not say when she anchors.

1407. This time is an average, whether the ship goes into the harbour or not?—I have taken the arrivals covering the period of nearly five months.

1408. Those include times when the tender went out and handed over the mails, and other times when the ship went into the harbour?—Everything included; I did not separate them at all. I took them in categorical order, and compared them with the date of sailing, as given by the Cunard Company, and I found, as I mentioned to you, that 2 hours and 9 minutes was the period while the accelerated service was running. Taking three separate sets of sailings covering nine months and comparing them, and taking an average, I found that the actual time of delay was 2 hours 57 minutes and 40 seconds.

1409. The White Star liner going from Southampton to Charbourg has to go out of her course?—Absolutely.

1410. Therefore she would lose more time. You are dealing only with the Cunarders?—Yes. The same thing would apply to the White Star; they would be timed from the arrival at Roche's Point or off the harbour.

1411. You speak in your note of the assumption that the big Cunarders were timed to leave Liverpool so as to reach Queenstown at or about dead low water, when the tide and weather conditions were always bound to be at their worst. I do not quite know what that means; the big Cunarders leave, as you know, at 2.30, or any time after that up to 5, when the tide suits at Liverpool?—They are scheduled to leave the landing stage at 2.30.

1412. And if the tide does not serve at 2.30 they may leave up to 5. That is the point?—That is so. I understand (this is a subject for those who have better nautical knowledge than I have, and I do not presume to have any) that in good weather the "Mauretania" and "Lusitania" do not cross the bar until about two hours of flood, and in bad weather, naturally, with the lift and fall of the sea, it would be unsafe to venture across the bar later than an hour or an hour and a half after the top of high water, or before 2½ hours flood.

1413. They got off at 2.30, or as soon after as the tide permits them; that is it, is it not?—That often means that although the steamer would leave the landing stage at 2.30 she would not get across the Mersey bar until about 8 o'clock.

1414. Precisely?—Therefore it is an illusion to imagine that the scheduled hour is adhered to in connection with the sailings of those steamers; it is not.

1415. She gets over the bar as soon as the tide serves?—Yes.

1416. There can be no question about her timing herself so as to reach Queenstown at the moment of the worst conditions; she goes straight on to Queenstown, and takes Queenstown as she finds it?—The observations I made were based on the evidence given by some of the gentlemen who were examined in connection with the accommodation at Queenstown, and I noticed that some of the evidence specially referred to the condition and the depth of water at low tide. The reason I make that allusion in my evidence is this: it must not be assumed that those ships would always arrive at low water. There are five chances out of six that they would arrive in quite other conditions of the tide, but taking the evidence given by the experts (and, of course, I am not presumptuous enough to set my opinion against theirs) I could not help being struck by the fact that all the evidence against Queenstown seemed to be based on the assumption that these ships had to enter Queenstown at low water, and therefore the depth of water in the channel entrance, and the depth of water in the swinging accommodation, would not be sufficient for those ships at low water.

1417. I do not think that presented itself to the minds of the Committee in the slightest degree; all we felt was that conditions might arise in which those ships would have to enter under the worst conditions, and we have to consider, in thinking of the safety of the harbour, what is to happen to these large ships under the worst possible conditions. But we never thought for a moment that it was a question of their always going in under bad conditions. They only enter, as we know, when it is pretty rough outside?—I would like to say that judging by the evidence, and by my knowledge of what the depth of water there is, I think the statement made by one of the witnesses examined at the last sitting here, Admiral Tuke,

seemed to be very strongly in favour of Queenstown, inasmuch as, if I read the evidence correctly, he stated that very large naval ships were navigated into Drogheda with only six inches under them, whereas at Queenstown there was never less than three feet.

1418. That is expert evidence?—Yes.

1419. You speak of this particular occurrence being used by the Cunard Company as a sound argument to induce the Postmaster-General to consent to abandon the call at the Irish port. Did you understand there was any question of the Postmaster-General consenting, because the Postmaster-General is advised that under the terms of the contract he cannot enforce it, it is not a question of his consent, but of his powers? Do you understand that?—That is as regards the contract, is it?

1420. Certainly; that is a very important point. As far as we know the Postmaster-General had no option.—Dealing with that matter, the reason I make special reference to it is that I find that the Cunard Company only in recent times, in the last 12 months or so, have refused to enter Queenstown to carry out the conditions of their contract owing to the statement put forward by them that there was not sufficient water, but I hold that that was not always their ground of complaint for not entering Queenstown, because on March 14th, 1913, the "Mauretania" did not enter Queenstown to embark the mails, and I felt it my duty, owing to my official position in Queenstown, and the fact that I had given this question some consideration, to bring the matter under the notice of Mr. Muldoon, the Member of Parliament for the Queenstown Division. He communicated with Mr. Samuel, and Mr. Samuel, in his reply, dated 26th April, 1912, said: "He had been in communication with the Cunard Company on the subject-matter of my letter, and that the commander of the 'Mauretania' had reported as follows" (these are the words): "That on account of fog, which obscured the leading marks it was considered imprudent to take the vessel into the harbour"—on account of fog, no reference whatever to danger or risk owing to lack of water, and it continues: "That the difficulty was increased by the fact that in the event of delay, sufficient coal of a suitable quality could not be obtained in Queenstown"—there was a coal strike on at the time.

1421. That statement merely amounts to this, that on a particular occasion the commander of the ship reported that the fog prevented him going in. That does not exclude his saying on some other occasion that other weather conditions prevented him, and I suppose you would admit that the existence of fog, to a sufficient extent, would be a very considerable bar to bringing a big ship in?—I do, but the commander of the ship on that occasion did not confine himself alone to giving the fact of the fog as the reason for his not going in. He gave an additional reason owing to the difficulty in getting coal. I venture to say that if at that time the commander of that steamer, the "Mauretania," knew there was a risk in entering with that ship owing to the depth of water, he would have put it forward as a reason. We never heard of it at the time, and if you will follow on you will find that it was not mentioned by the company until 1913.

1422. The commander is dealing with this particular occasion, and on that particular occasion there might have been an immense depth of water in the channel?—That immense depth of water could not continue, because he refers to the danger of the delay. If there was delay there was also danger of less water by a falling tide and, therefore, I again emphasise the fact that if there was risk to be incurred owing to the lack of sufficient water, and he felt that risk was there, he certainly would have put it forward as one of the reasons for not entering when he put forward something more than the mere risk of fog.

1423. The risk did not arise on that particular occasion; he meant to convey the additional reason, I suppose, that if he kept waiting about for a sufficient time he might find himself short of coal?—In the meantime the tide would have been altering, although the fog might not have been lifting.

1424. I want to make it quite clear to you how the question stands, and it is a purely legal question. The Post Office cannot help you unless it gets a tender which would meet your conditions. As far as we know there is no prospect of such a tender being received from anybody. That is really putting the thing in a nutshell?—That is as regards what we call the White Star mail, but that does not affect the Cunard contract, and the point I should like to urge on your lordship, and on the Committee, is this, that the Postmaster-General had not sufficient ground upon which to vary or abrogate altogether the most fundamental provision in the contract on the mere plea put forward by the Cunard Company of insufficiency of water.

1425. What I want to impress upon you is that the Postmaster-General did this with extreme reluctance; he did not like doing it at all, but he was advised by his responsible legal advisers that he must consent. I want you to get into your mind that the Postmaster-General did not like it any better than you did, and would have objected to it if he could. When you are told by your lawyer that you must not do a thing, you as an amateur, generally agree not to do that thing and you are wise in that decision. You see that?—I see that, my lord, but just one more word about that before we leave it. The reason I would like to say that I still cannot quite agree with the Postmaster-General for altering the contract is this, that the conditions at the time he altered the contract were identically the same as obtained for 5 years previously when those ships were entering the inner harbour, and I was on board those two big ships myself on more than one occasion when they entered the harbour under exactly the same conditions as existed when the Postmaster-General annulled the contract.

1426. That is quite undoubted; and on the other hand the law is a very curious thing, and we can only accept interpretations of the law from legal experts. I should be very sorry to interfere with their decisions?—They are not always right, though.

1427. I quite agree. With regard to the passenger traffic, you say it is to be very seriously affected because the American tourists will not go to Ireland if they cannot embark on Sundays at Queenstown. Have you any evidence that there is any falling off in passenger traffic owing to this stopping of the call?—In this way, that I know how it has affected Queenstown and the hotel-keepers there, and I know how it has affected the hotel-keepers at Killybegs and Glengriff, and all the south-western area. There are some beauty spots in the country where the Great Southern and Western Railway have invested a large amount of money in putting up excellent hotels. I know they have practically lost all their American trade.

1428. When you say you know, have you any figures to show that there has been a great falling off in this traffic?—I have no figures available just now, but it is really from the hotel-keepers I have had it, I have had it from the manager of the Victoria Hotel at Killybegs, Mr. Maher Laughnan. They think they have lost their American traffic altogether.

1429. Are you sure it was not due to the conditions arising out of the war?—Previous to the war altogether. I also had it from the manager of the Gresham Hotel in Dublin, and also from the manager of the Imperial Hotel in Belfast. I was there some time in the summer and I was speaking to him, and he

said that they had not anything at all like the numbers of Americans they had formerly. The general feeling in Ireland is that owing to the "Mauretania" and "Lusitania" not calling at Queenstown East bound the better class tourists will not visit Ireland at all. It was stated at a meeting which was held at Dublin, which I had a good deal to do with the organisation of, by Mr. Crossley, who was very prominently associated with the tourist traffic in Ireland, that the loss might be put down at from £100,000 to £150,000 a year, that is the loss to Ireland from the tourist traffic. The loss to Ireland is really more real than apparent for this reason, that there is quite a number of American tourists who visit the Continent first before touring Ireland. They often proceed direct to the Continent, or proceed to Southampton or Plymouth, and disembark at those ports, or they disembark at Liverpool, Fishguard, or Oban. They "do" the Continent and Great Britain, and then come over to Ireland and visit the Giant's Causeway and Dublin and come down to Killarney, and then they have the convenience of the embarkation at Queenstown on Sundays, so that you do not put them to any inconvenience whatever. If they have not that convenience, it means crossing and recrossing the Channel with all its inconvenience and expense. There can be no question, and I am sure the Committee will agree with me, that the revocation of the contract, in so far as the Cunard steamers call at Queenstown is concerned, is a very serious blow, not alone to the commercial and industrial interests of Ireland, but to the tourist traffic as well.

1430. And nothing could restore the losses which you say have occurred except the regular calling at Queenstown of steamers of not less than 22 or 24 knots—I do not know of anything else which could do it. I would like you not to misunderstand me. I do not mean to say there are no courses landing off the ordinary steamers at Queenstown, such as the "Baltic," the "Cedric," and the "Adriatic," the excellent ships of the White Star Company, and also coming off the fine steamers of the Cunard Company, such as the "Carola" and the "Carmania." They did call after the other ships ceased, and I say they brought a certain amount of tourist traffic to the country, but the fact that the Cunard Company stopped the "Lusitania" and the "Mauretania" from calling on the east bound route was a very serious disadvantage to the country; we had to put up with that, but it was not so bad as the absolute discontinuance now of any kind of steamer calling at Queenstown on Sundays to embark the back-going tourists. We have lost the advantage we possessed for the last 50 years, so that as regards east and west-bound travel we are practically isolated.

1431. You admit you have a very fine service from Queenstown, but it does not take the mails now and it does not deal with the tourist traffic which you speak of?—Not the better class.

1432. And nothing would meet that tourist traffic but the return of the regular calling of the very fast steamers?—I would not say nothing would do it.

1433. Why do they not go in the other steamers?—I mean the better-to-do American people do not travel, in my opinion, by the slower ships, they prefer to go by the fast ones. Whether it is that they relish the idea of paying £100 or £150 for a state room, or that they meet a more select class of society, I do not know, but the fact remains, and is generally admitted, that the better-class people usually travel by the first-class ships and the faster mail steamers.

1434. And that class can only be brought back to Ireland by the stopping of these very fast steamers at Queenstown?—I should say so.

1435. (Mr. Sneyd.) You said in your evidence that you thought the Directors of the Cunard Company were in some way interested in the Great Western Railway?—That was a mere matter of opinion on my part, but I had reason to believe it from various hints I received, it seemed to be common knowledge among the people of Queenstown interested in shipping affairs.

1436. As a matter of fact the "Mauretania" and "Lusitania" call at Fishguard always?—They do—on the east-bound passage only.

1437. Not on the west-bound?—No, they go direct.

1438. Now as to the general tourist traffic, or passenger traffic, as I may call it, to and from Queenstown, if you look at Question 399 in Mr. Booth's evidence, I asked him if the smaller boats would call at Queenstown in future, and his answer was that "They do now; they are not governed by the contract at all, they simply 'call as a matter of business.'" Then if you look at Question 428—?—They are not calling at all just now.

1439. That, I suppose, is on account of the war, the boats being requisitioned?—Yes; I only want to make that clear.

1440. This answer was given in June, before the war broke out. If you look at Mr. Sanderson's evidence, Question 425, he was asked by the Chairman, "There is no intention of stopping the Liverpool service to Queenstown, which gives very large facilities for Queenstown, except as regards the mails," and his answer was, "On the contrary, from the time we cease altogether the mail service there we shall be more particular in maintaining the regularity of the Liverpool service in order to attract passenger business at Queenstown. There is reason to fear that anybody wanting to sail from Queenstown will not get ample opportunity for doing so." Now it has also been given in evidence that boats still go there of from 20,000 to 24,000 tons. Are not those boats simply large enough to provide for any ordinary passenger traffic, either tourist or emigrant?—They are sufficiently large and sufficiently well equipped and appointed in every way to provide for emigration, and they unquestionably do bring a reasonable share of tourist traffic to Queenstown, but at they do not as we say bring the better-to-do class of people who travel by the fast steamers like the "Mauretania," "Lusitania," or "Olympic." In the first place the fares on the slower steamers are much more reasonable than on the other ships.

1441. We had evidence either from Mr. Booth or Mr. Sanderson that a great many people preferred travelling by the smaller and slower boats, and they also produced evidence showing from the returns that a much larger number went by those than by the more expensive boats?—That may be, but a very large number of those are second cabin passengers; I know those steamers had a very considerable number of second cabin passengers at Queenstown. When I say that, I want to make it clear that they have also excellent accommodation for first-class passengers, and a reasonably good number of first-class passengers do find from those steamers at Queenstown, but I again say that you will not get as many of the people who spend a lot of money travelling by those steamers as by the fast steamers.

1442. I quite appreciate that there is a certain class you will not get?—That is so.

1443. They pass by Queenstown and go on, but that I am afraid is inevitable under the existing condition of things. Is the tender over late in attending on the liner when she comes in? Has the liner ever to wait for the tender?—What particular vessels are you referring to?

1444. Any of the liners coming in and casting anchor in the roads—have they ever to wait for the tender?—On some occasions, certainly. Take the "Mauretania" and "Lusitania," for instance, if those ships are able to leave the landing stage owing to the condition of the tide and proceed without delay they will certainly arrive at Queenstown at an hour which will be much earlier than the arrival of the mails, and therefore the tender will not be able to clear those ships until the mails are not on board; but in a return which I have before me in connection with those vessels, I think there were 10 or 15 sailings by the accelerated service from Boston being run, and on exactly half the number of occasions given in the return, the mails, with the tender, were waiting for the arrival of the "Mauretania" and "Lusitania." That was owing to the fact that the ships were unable to cross the bar and were late in arriving off Queenstown; so that it cuts both ways, sometimes the mails are waiting, and sometimes the steamers are waiting. I have taken what I call a very fair average of the delay from three separate returns, and it works out at 2 hours and about 57 minutes.

1445. Does that period, the 2 hours and whatever number of minutes you give there, represent the length of time the liner had to wait for the tender?—It represents the period from the time of her passing in—the official hour of arrival—up to the time she passes the same point going out, including the embarkation of the mails and passengers and the embarkation of baggage.

1446. What is the length of the journey from Liverpool to Queenstown?—It depends on the steamer.

1447. With the larger ones?—At present the "Mauretania" and "Lusitania" will do the journey, I should say, in ten hours; they used to do it in about 9½, but they are getting a bit old, and their speed is, I presume, naturally getting less.

1448. So that if they left at flood tide from Liverpool they would reach Queenstown at something within a couple of hours also of flood tide, is not that so, allowing 12 hours from full tide to full tide?—I have not before me the tide table of Queenstown, and I cannot say exactly what it would be. The tides are different.

1449. I know they are?—At all events you may take it that with fair weather and no fog (and of course that is an operating cause which will tell very much against speed), the "Mauretania" and "Lusitania" will come from Liverpool to Queenstown in 10 hours. They used to do it even in less.

1450. I thought there might have been some connection between the time of departure of the boat from Liverpool, which must be somewhere about high tide, and its arrival at Queenstown, whether they got into low water regularly or into half tide or full tide?—It would altogether depend on the conditions when they left there. It would not be necessary that you should have high tide at Liverpool. The ships might cross the bar at half tide, or at a little less than half flood tide; that would be a rising tide.

1451. You do not know the relative times of the tide at Liverpool and Queenstown, do you?—No, that is more a matter for a nautical person.

1452. (Mr. Dent.) Mr. Swinney has asked you a question I was going to ask you about the Great Western: I understand you do not press that opinion of yours that the Great Western Company were influencing the question about avoiding Queenstown?—I simply referred to what was common comment.

1453. You cannot give evidence of it?—I have no evidence of it except that it was common knowledge. I could not apply that to the White Star Company at all; the reason it was mentioned was that it was stated that there were Directors of the Cunard Company on the Directorate of the Great Western.

1454. You do not press that as of any importance?—It is of no great importance now.

1455. Could you give any idea of the number of mail bags which would come purely from Ireland, and how many from the United Kingdom generally—the proportion of the mails?—I knew what the proportion was, but I cannot remember it at the moment.

1456. Could you give me the Belfast proportion?—I know that Belfast would be much more considerable than any other part of Ireland owing to the much larger volume of trade.

1457. Could you give us any idea of the proportion of the passengers who would wish to go to Ireland, because a great many of them would want to go on the Continent, and to parts of this country, and they would not want to go to Queenstown at all?—We have evidence that they would rather not call at Queenstown?—It is not easy to decide that by any return, because some of the saloon passengers would land at Queenstown, and having "done" Ireland from the tourist standpoint, would go to England and the Continent and then embark either at Southampton (because the tickets are available by the White Star) or at Cherbourg; and in the same way tourists landing at Liverpool, Fishguard, or Southampton, or Cherbourg could come back and visit Ireland and embark at Queenstown.

1458. The Chairman has called your attention to the fact that we have no complaints from any other great centre in the country about this matter. It is really an Irish question, is it not?—I would not say that at all; I differ from that opinion altogether. I say it is a matter for the industrial and commercial interests of Great Britain just as well.

1459. Why do they not come forward and complain?—That is a matter I have no control over, I cannot say, but the fact remains that the existing arrangement is unquestionably a disadvantage to the commercial interests of Great Britain.

1460. I should have thought if they had any great grievance they would have come forward?—I believe the Glasgow Chamber of Commerce did, either at the time the matter was under discussion in Parliament as to the change of call at Queenstown, or since, protest against the change as being inimical to the business interests of Glasgow and Scotland.

The witness withdrew.

APPENDIX No. 16.

REPORT of Sir John Hawkland, C.B., on the capabilities of Valencia Harbour as a Station for Transatlantic Packets, handed in by Mr. Robert Fitzgerald, agent to the Knight of Kerry, during his examination on 16th September, 1918

83, Great George Street, Westminster.
9th July, 1900.

To the Directors of the Killybegs and Valencia Railway.
GENTLEMEN,

In compliance with the request to visit and inspect the harbour of Valencia, and to report my opinion.

on its fitness for a Harbour of Refuge, and its capabilities for a Packet Station, I proceeded towards the end of May last to Valentia, accompanied by Mr. Barry, the Engineer to your proposed Railway, and made when there a personal examination of the harbour and its approaches. On the way to Valentia we examined the proposed route of the Killarney and Valentia Railway.

Previous to my visit it had been suggested that the railway should terminate at Light Point, and a Pier be erected there, which, if a passage were dredged through Donus Bay, might be approached through Donus Bay, and borings had been taken to ascertain the practicability of deepening the bar to the required extent.

But on examining the borings after my arrival, it appeared that the bar was underlain by rock, which extended across the passage at that point, and lay at so high a level as to render it, on the score of expense, inexpedient to seek a deep-water entrance in that direction, though it is questionable if that plan would have been desirable in other respects.

In consequence of the abandonment of this entrance it will probably be found more convenient to make the railway terminate at Reenard Point.

The attention both of nautical men and of civil engineers has on different occasions, and for a long time past, been directed to the merits of the Harbour of Valentia, and since my return therefrom, I have studied the charts of that part of the coast, acquainted myself with the result of former inquiries, and compared the nautical and engineering opinions that have already been given on the subject.

The views of those members of my own profession who have looked at Valentia, so far as I have been able to ascertain them, appear always to have been favourable to the capabilities of this harbour. There has been more difference of opinion among nautical men, but I find with regard to them that the most unfavourable have, in several instances, come from persons who were not personally acquainted with the harbour, or who have been interested in or called to support the claims of rival places.

In geographical position Valentia is not only the most western harbour of Ireland, but of Europe, and when the railway from Killarney to Valentia is completed, it may be reached in sixteen or seventeen hours from London.

It is also the nearest harbour we have to America, being distant from Halifax only 2,145 miles.

Its position in these respects, therefore, is most favourable, and its superiority in geographical position would seem to have been admitted when it was selected as the point of departure for the Atlantic Telegraph.

Its absolute internal security is also admitted, being completely land-locked and sheltered, and though from this circumstance the quality of the holding ground becomes comparatively of less importance, yet, from borings taken at my request, and from such information as I could procure, it appears to be good in that respect.

The area of the harbour, at low water is upwards of two thousand acres, and within the three-fathoms line there are five hundred acres, which deepens out to six fathoms. In size, therefore, it is quite ample.

The position from sea would appear to be well indicated by the Skelligs, which are lighted, and which lie about eight miles to the south-west, and by Blacker Island, which lies about thirteen miles to the north-west. The latter is not lighted, but Commander Wolfe, who reported on this harbour to Admiral Beaufort in 1849, states that, if a light were placed upon the Fene, which lies about fourteen miles to the north-west, the approach would in his opinion be perfect.

Some nautical men have objected that no sufficient indication of its approach is to be had by soundings. But Captain Wolfe, whose employment on the coast survey should make him a good authority on this point states in the report referred to that "the edge of one hundred fathoms soundings is a well-defined line at a distance of about twenty-five miles to the westward of the Fene, and a depth of forty-five fathoms would warn vessels of being within the line joining the Fene and the great Skellig." This statement of Captain Wolfe's I find on examination to be correct.

The objection that appeared to me to require the most careful investigation was that which has been made to the entrance of the harbour, of which there are two—one from the north-west, the other from the south west by Port Magee.

The north-west entrance is the principal one; it is short and deep, but it has been objected to by some nautical authorities, whose opinion should have weight, as being too narrow. Its width is about five hundred feet within the five-fathom line.

Captain Washington, the present Hydrographer to the Admiralty, in his evidence before the Transatlantic Packet Station Committee in 1851, pointed out that defect.

The south-west entrance, although considerably the larger of the two at the mouth, is in its present state, excepting up to near Port Magee ferry-house, too shallow for large steamers, and is ill-adapted for sailing vessels.

I observed during my visit when it happened to be blowing fresh that the foam from the waves on the sharp pointed rocks, which lie beneath the lighthouse at the north-west entrance, was swept across it and gave the appearance of breakers (the actual existence of which has been described by some of the nautical men) where the water was much too deep to admit of any in reality.

There is, however, much difference of opinion among nautical authorities as to the absolute safety of the entrance as it now is. Captain Wolfe, in his report already quoted, observes that "although in heavy north-west gales there will appear from the outside a line of breakers across the entrance, yet a well-conditioned steamer may safely be carried through, and a good landing mark may be easily established, which may be fearlessly run upon;" and the pilots on the island told me that they can take a ship through the passage as it now is in the heaviest gale.

But it would not require a very large expenditure to improve this entrance. In fact, both entrances may, at no large cost, be made greatly better.

For the improvement of these entrances it would be necessary to carry out the following works, viz. :—

1. NORTH-WEST ENTRANCE

To blow away the Clogharall Rocks, which lie on the north side of the north-west entrance, and to scarp and blast the pointed rocks which lie under the lighthouse on its south side, so as to secure a minimum depth of twenty-four feet at low water Spring tides for a width of eight hundred feet; and to further improve this entrance by clearing away the twenty-feet and fourteen-feet rocks that lie between the harbour rock, Pech and Beginnis Island.

2. ROUTE WEST ENTRANCE.

To dredge the Port Magee Channel to a bottom width of two hundred feet, and to a depth of twenty one feet below low water of Spring tides.

The dredging of Port Magee Channel would have to extend from near Port Magee ferry-house to Beenglass Point. To assure myself of the practicability of this portion of the work, Mr. Barry at my request has, since my visit to Valentia, had the requisite borings taken, and he reports that the whole of the material that would have to be dredged consists of mud and sand.

There is no difficulty, therefore, in estimating the cost of that portion with tolerable precision; the expense of blasting away the rocks on the north-west entrance is more uncertain.

I am of opinion, however, that the cost of removing the rocks on the north-west entrance would not exceed £50,000. The requisite dredging of the south-west entrance may be done, I think, for £60,000.

But of these two works the former is, in my view, the first in importance. For the present, therefore, I should recommend the expenditure to be confined to improving the north-west entrance. If carried out to the extent I have named, and which is indicated on the plan attached to this report, it would, I believe, remove all valid objections to the Harbour of Valentia, and would make it a most valuable harbour of refuge and packet station.

The water inside is so still as to render docks unnecessary. Sufficient quay space for large class steamers or vessels to land mails or cargoes at all times of the tide could easily be formed at or near Rosnare Point.

The construction of the railway from Killybeg to Valentia presents no unusual difficulties.

From my examination of the ground at Drung Hill it appeared to me that the railway by a little care might be carried round the cliffs of Deagle Bay at the foot of that hill without the tunnel which had been proposed there.

I am, Gentlemen,

Your obedient Servant,

(Signed) JOHN HAWKESHAU.

APPENDIX No. 17.

Schedules (A, B, and C.) handed in by Lord Montagu, Chairman, Foynes Harbour Trustees, during his examination on 16th September, 1918.

SCHEDULE A.—DISTANCES IN DISTRICT SERVED BY FOYNES HARBOUR

Stations	Foynes	Miles from Limerick.	Tralee	Villages Served by Station
Foynes	—	—	—	Loughill, Ballynahill Gln, Tarbert, Ballylongford, Newtownstanden, Shanagoldan
Askeaton	6	30	36	Ballyteast, Pallaskey
Ballingrass	9	17	35	
Adare	15	11	39	Kildimo, New
Patrickswell	19	7	43	Clunna, Old Kildimo, Ferrybridge, Kilparcon, Stanshall
Bathkeale	11	19	34	Ballingarry, Crough Knockaderry, Cleenagh, Coochappa, Killybeg, Roons Pike
Ardagh	16	24	46	Curickerry, Aibha
Newcastle West	19	27	48	Feenagh, Castlerahan Monaghan, Kileedy, Ashford, Broadford, Drumcolthier, Kilsoddy Strand, Feenagh
Buncagh	25	33	37	Templeglantine, Tournafulla, Crough, Broomanna, Glenquinn, Kilsaulen, Walshestown
Devon Road	30	38	32	
Abbeydale	42	41	29	Knocknagahel, Mo Cahel, Mt. Coll
Kilbruma	37	45	25	Dough, Knockanure
Listowel	42	50	20	
Linnaw	49	57	13	
Abbeystown	54	62	8	Killybeg
Ardfield	57	65	5	

TOWNS AND VILLAGES IN CO. CLARE THAT COULD BE SUPPLIED FROM FOYNES BY BOAT.

Town	Miles.	Town	Miles.
Clare Castle	24	Kilmurray McMahon	8
Lambesheeda	5	Kilrush	18
Knock	10	Kilbaha	20
Corrigholt	27	Kilmaid	10
Killybeg	4	Kilroe	27
Ballynacally	6		

SCHEDULE B.—FOYNES HARBOUR—IMPORTS.

—	Slag.	Coal.	Ice.	Oil.	Timber.	Sandlries.	Total.
Year.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1890	—	5,000	—	—	785	1,370	7,054
1891	—	5,065	—	—	923	1,533	7,498
1892	—	4,113	—	—	690	1,970	6,883
1893	—	6,522	—	—	—	785	7,317
1894	—	4,237	—	—	430	1,100	5,828
1895	—	2,316	—	—	490	932	3,738
1896	—	3,961	—	—	450	1,164	5,575
1897	—	2,852	—	—	758	1,240	4,799
1898	—	3,516	128	—	550	766	5,049
1899	—	3,201	199	—	350	704	4,945
1900	—	3,566	432	—	—	499	4,497
1901	—	2,531	490	—	550	329	3,881
1902	—	2,667	670	—	—	700	3,937
1903	—	3,400	578	—	100	1,184	5,262
1904	—	3,267	—	4,307	928	624	9,446
1905	—	3,125	479	3,415	160	767	8,546
1906	—	5,965	737	1,912	315	620	9,879
1907	680	3,840	570	2,537	75	480	13,882
1908	750	4,677	783	7,407	693	620	16,790
1909	850	5,142	768	7,696	97	745	16,581
1910	680	5,122	452	6,848	311	736	16,166
1911	960	3,915	790	6,786	900	880	13,701
1912	980	4,721	1,640	8,170	100	808	15,820
1913	640	3,068	480	12,525	1,885	901	21,449
1914	380	4,611	—	7,966	2,205	*3,946	19,078
1915	634	2,652	618	8,947	751	100	14,712
1916	—	1,887	—	10,227	100	80	11,924
1917	—	548	—	2,270	706	—	3,176
1918	—	—	—	2,984	2,922	—	4,884

* Of this 2,416 tons was Wheat.

SCHEDULE C.—FOYNES HARBOUR RECEIPTS AND EXPENDITURE, EXCLUDING PERMANENT WORKS, 1890-1918.

Year	Receipts.	Expenditure.	Year	Receipts	Expenditure
	£	£		£	£
1890	75	66	1904	911	101
1891	123	89	1905	200	196
1892	121	89	1906	233	245
1893	97	176	1907	321	385
1894	111	177	1908	661	626
1895	85	84	1909	256	245
1896	100	139	1910	364	328
1897	53	137	1911	400	321
1898	119	139	1912	374	382
1899	105	129	1913	528	450
1900	108	160	1914	1,293	659
1901	109	144	1915	682	*909
1902	78	143	1916	553	*569
1903	143	176	1917	536	*681
Totals	£1,403	£1,906 Deficit \$443	Totals	£2,413	£6,136 Surplus £393

* These sums include payments amounting to £602 spent on permanent works.

† Dues increased 1st January this year.

APPENDIX No 18.

Copy of Report sent to Lord St. David's Committee by the Limerick Harbour Commissioners relative to accommodation at the Port and proposed Railway connection therewith, statement as to re-payment of Port Loans, Principal and Interest; also, List of Vessels that entered the Port in the year 1913, transmitted by the Limerick Harbour Commissioners after evidence had been given by their Secretary, Mr. J. F. Power, on 17th September, 1916.

(A)—REPORT SENT TO LORD ST. DAVID'S COMMITTEE.

LIMERICK PORT.—PARTICULARS OF ACCOMMODATION

Harbour Commissioners Graving Dock.—423 feet long, 394 feet on blocks, 45 feet 11 inches wide at entrance, 2 feet 5 inches height of sill above the bottom, depth of water on sill, ordinary Spring, 17 feet. Ordinary Springs are 5 feet over tides.

There are two workshops owned by private firms capable of effecting ordinary repairs to hull and machinery.

Harbour Commissioners' Wet Dock.—7½ acres; length, south side, 850 feet, west 453 feet, north 790 feet; depth on sill at high water ordinary Spring tides, 23 feet, depth on sill at high water ordinary neap tides, 16 feet 6 inches.

Cranes.—One 6 tons, one 5 tons—worked by hand.

Superficial Area of the Dock Quays.—Available for new sheds, 7.95 acres (please see plan herewith).

The above length of quays shows berths for say, four steamers, carrying, say, 45,000 tons of grain each, one can be worked by Messrs. Bannatyne & Son's Suction Plant at the rate of, say, 600 to 800 tons per working day; a second cargo can be discharged by hand and ship's winches by the authorities supplying, say, 100 outside dock workers at the rate of 1,000 tons per day; this latter would be bagged and delivered to rail if sufficient railway wagons were supplied. Two other cargoes can be worked simultaneously if outside dock labour is supplied to the extent of 100 to 200 additional men per each steamer, but to cost these cargoes direct to rail would also require the supplying by the authorities of some 10 or 15 motor lorries and the railway company to considerably increase their supply of wagons. Transit sheds can be erected on the west and north side for receiving bagged grain.

There is room for storage by private firms for, say, 25,000 to 30,000 tons of grain outside these firms' ordinary requirements, and there are also the dock sheds, as per plan, sufficient to cope with about one cargo.

Vessels whose draft may be more than the high water of the day on the sill of the dock, can be lightened at Bough Castle, some 16 miles below the docks, where they can always lay safely afloat, for lighterage there are Messrs. Bannatyne & Son's lighter "Derg," carrying 1,500 to 1,600 tons of grain; also five river steamers—capacity, one 200 tons, one 150 tons, one 100 tons, and two, say, 45 tons each, and occasionally coasting steamers, 600 to 700 tons, would be available.

The depth of the channel of the river is greater than the depth on the dock sill.

Messrs. J. Bannatyne & Son's "Garryowen," the Harbour Commissioners' "Erin-Go-Bragh" and the Limerick Steam Ship Company's "Shannon" are available for assisting vessels docking if required, and for towing.

There are also outside the docks, tidal quays, say, 3,500 feet, with a depth of water at ordinary Spring tides of 12 feet to 16 feet, supplied with three 5-ton cranes and one electric 4 ton crane in process of erection.

A project for connecting the Port with the Railway System was presented to your Committee, which, if carried out would alter the position substantially with regard to the saving of time and outlay, as vessels would be discharged direct into the railway wagons.

I may add that there are four weekly general cargo coasting steamers running to here from Liverpool and Glasgow, which would be available for carrying grain back in bulk and saving sacks for cartage.

(a)—REPAYMENT OF LOANS, PRINCIPAL AND INTEREST, 1913.

	Principal.	Interest.
Commuted Debt	£2,012 11 8	
£10,000 Loan	£400 0 0	£ 23 3 4
£3,500 Loan	175 0 0	43 14 11
£20,000 Loan	659 15 2	153 11 6
Sir Thomas Deane's Debt	134 0 0	10 12 3
	<u>£2,012 11 8</u>	<u>1,209 15 11</u>
		<u>349 2 0</u>

(c)—LIST OF VESSELS HAVING ENTERED THE PORT OF LIMERICK, 1913

	Ocean-going Steamers	Ocean-going Sailing Vessels.	Coasting Steamers	Coasting Sailing Vessels.	Totals.
January	2	NIL	27	1	30
February	3	4	28	NIL	35
March	3	1	25	NIL	29
April	3	NIL	24	1	29
May	4	4	20	3	31
June	10	3	23	2	38
July	4	3	20	2	31
August	3	1	28	2	34
September	5	3	27	NIL	35
October	6	1	25	1	33
November	6	NIL	25	1	32
December	6	NIL	25	1	32
	<u>53</u>	<u>19</u>	<u>362</u>	<u>14</u>	<u>454</u>

APPENDIX No. 19.

REPORT as to means of connecting the Railway Systems converging upon the City of Limerick with its Docks, Quays, etc., and Schedules A to H inclusive specifying proposed new Railways and Tramways with Estimates of cost of construction of same and of Rolling Stock, Sheds, Cranes, etc., prepared and transmitted on 25th September, 1912, by Messrs. S. G. Fraser, M. Inst., C.E., and B. E. F. Sheehy, M. Inst., C.E., Joint Engineers.

570, Connell Street, Limerick,
25th September, 1912

REPORT.

The City of Limerick, which has a population of 47,000 inhabitants, has a very commanding position, being situated on the easily navigable tidal estuary of the River Shannon, which may be said to form a natural Manchester Canal extending inland for a distance of 64 miles from the mouth of the river, which if properly worked should make the city a great distributing centre, as stated in the evidence of Mr. John Power, Secretary to the Harbour Board, given before the Committee on the 17th inst.

The Port affords the following facilities:—

1. Vessels of 7,000 tons can be handled at the Port.
2. The Spring tides rise 22 feet, and there is 24 feet of water on the dock sill at high water, Spring tides.
3. The area of the Floating Docks is $7\frac{1}{2}$ acres, with an entrance width of 70 feet.
4. The length of the Quays in the Floating Dock is 1,393 feet.
5. There is also a Dry Dock 422 feet long with an entrance width of 46 and a depth of 17 feet on the sill at high water, Ordinary Spring tides.
6. In addition there is a length of 3,500 feet Quays where vessels take the ground at low water. Eight acres of the quays are available for sheds.
7. At present Messrs. J. Bannelyne and Son, Ltd., Millers, have very large stores adjoining the Floating Dock, and Messrs. F. Spangar and Son, Ltd., Messrs. J. N. Russell and Sons, Ltd., Whitehaven Colliery Co., Ltd., The Limerick Steamship Co., Ltd., The Clyde Shipping Co., Ltd., Stations, Ltd., Glynn and Sons, Mullock and Co., Jas. McMahon, Ltd., and Power and Sons, who are some of the largest merchants in Limerick, have their stores adjacent to the quay.

Thus there are afforded facilities for a greatly increased trade, but the fatal barrier still exists of want of railway communication between the Docks and Quays and the Railway Terminals, situated some 33 feet above the quay level.

There are five lines of Railway converging upon the city from Dublin, Waterford, Cork, Tralee and Killybeg, while the line running in a northerly direction by Ennis, Athlone, Clonsilla and Sligo joins the city in connection with the whole of the West and North-west of Ireland.

Were there any engineering difficulties the present unsatisfactory conditions might be explained, but as a fact no such difficulties exist, and a most efficient connection, having very easy gradients and curves, which could be worked at a low cost either by steam or electricity, can be built quickly and at a moderate cost.

The present proposal is a necessary modification (due to extended building developments) of the one which Mr. Fraser in 1887 presented to Parliament at the request of the Harbour Board and Corporation, and which passed all its preliminary stages and would have unquestionably received the final sanction of Parliament had it not been withdrawn at the request of the Harbour Board on account of the fall of a considerable portion of the quay wall, the reconstruction of which involved a serious expenditure on the Harbour Commissioners.

The fixing of the route to satisfy the requirements, both present and future, have at the request of some of the business men of the city received the careful consideration of Mr. Fraser and Mr. Sheehy, who are associated as joint engineers to the project.

The line will be constructed of the Standard Gauge, viz., 5 feet 3 inches, with easy gradients and curves.

The rails will be steel rails of 80 lbs to the lined yard, laid on sleepers 9 feet by 10 inches by 8 inches—2,000 sleepers to the mile, the rails being fished and fastened in the ordinary way. The permanent way will be laid on a bed of broken stone ballast one-and-a-half cubic yards to the lined yard. The lines will be substantially fenced and the usual level crossings, gates and houses, field crossings, culverts and occupation works will be provided.

The land to enable the line to be doubled hereafter, when increased trade requirements demand it, will be acquired, and any overbridges will be built as usual to suit the doubling of the line at a later date.

The length of the Railways and Sidings necessary to carry out the proper railway connection with the existing Docks and Quays is 5 miles. (See Schedules A and C annexed.)

It will, however, be necessary so as to properly work the traffic in the existing Docks and along the Quays to construct about 14 miles of Tramways. (See Schedules B, G and H.)

It must be pointed out that the cost of all labour and material has enormously increased, in fact it has risen 100 per cent., so it would not be safe to rely on a lower total estimate than that given in Schedule D, namely, £80,000, especially as ample provision must be made for efficiently working the Dock traffic by means of the erection of cranes, sheds, &c., estimated at £24,000. (See Schedule D.)

The total estimated cost of £80,000 to carry out the undertaking will be found on full consideration to be a safe but by no means an excessive estimate.

There has been included in the project three more Lines of Railway, viz., Nos. 4, 5 and 6 (see Schedule A), to the site of the proposed Tidal Dock.

Should Mr. Morley's project to run cargo boats direct between America and Limerick, as stated by him in his evidence before your Committee, be carried out, as no doubt it will if proper facilities are now afforded, this Dock and its connections should certainly be constructed. However, the cost of the Dock may be left out of consideration at the present moment, though it would no doubt be of great public and local advantage.

(Signed) S. G. FRASER, M. Inst. C.E.
(") BRIAN E. F. SHEEHY, M. Inst. C.E. } Joint Engineers.

SCHEDULE A.
CITY AND PORT OF LIMERICK RAILWAY.

Description of the proposed Railways comprised in the Scheme with their separate Lengths.

Ry. No.	Description.	Total Length.		
		Miles.	Fms.	Chs.
1.	From Level Crossing at Rosbrien to the Docks - - - - -	2	5	6
2.	From Junction with the Great Southern and Western Railway to Rosbrien Level Crossing - - - - -	0	6	0
3.	Link Line between Railway No. 1 and the Limerick and Tralee Branch of the Great Southern and Western Railway - - - - -	0	5	6
4.	From Junction with Railway No. 1 at 1 mile post to the River Shannon on the Eastern side of the proposed Tidal Dock - - - - -	1	5	0
5.	From Junction with Railway No. 1, near 2 mile post, with and parallel to the Limerick and Tipperary County Road and thence to the River Shannon on the Western side of the proposed Tidal Dock - - - - -	1	4	0
6.	Link Line with Railways Nos. 4 and 5 - - - - -	0	1	6
	Total Length - - - - -	7	4	8
	Deduct Railways in connection with the proposed Tidal Dock - - - - -			
	M. F. C.			
	Railway No. 4 - - - - -		1	5
	Railway No. 5 - - - - -		1	5
	Railway No. 6 - - - - -		0	1
		3	3	6
	Length of Railways in connection with Docks - - - - -	4	1	2
7.	Add for Siding to Ballist Bank from Junction with Railway No. 1 near 2 mile post - - - - -	0	6	8
	Total Length of Railways in connection with Docks - - - - -	5	0	6

SCHEDULE B.
CITY AND PORT OF LIMERICK RAILWAY.

Description of the Proposed Tramways comprised in the Scheme, with their separate Lengths.

Tramway No.	Description.	Total Length.		
		Miles.	Fms.	Chs.
1.	From Junction with Railway No. 1 to Sarsfield Street - - - - -	0	3	
2.	From Junction with Tramway No. 1 to Entrance to Docks at Swan Boat Quay - - - - -	1	6	
3.	Link Line between Tramways Nos. 1 and 2 - - - - -			6
4.	From Junction with Tramway No. 2 to Draw Bridge near Dock Gates to Floating Dock - - - - -			4
5.	From Junction with Tramway No. 1 along the Western and Northern walls of Floating Docks - - - - -	2	2	
	Length of Tramways - - - - -	1	3	1
6.	Add if Tramway be earned along Hogan's Quay from Junction with Tramway No. 1 - - - - -		1	1
	Total Length of Tramways - - - - -	1	4	2

SCHEDULE C.

CITY AND PORT OF LIMERICK RAILWAYS.

Total Length of Railways and Tramways.

	Miles.	Fms.	Chns.
Railways - - - - -	5	0	0
Tramways - - - - -	1	4	2
Total Length - - - - -	6	4	2

SCHEDULE D.

CITY AND PORT OF LIMERICK RAILWAY.

SUMMARY of Expenditure on both Railways and Tramways including Purchase of Land, Rolling Stock, Shed Cans, Contingencies, Professional and other charges.

5 Miles.	0 Fms.	0 Chns.	Railways - - - - -	£10,000 0 0
1 "	4 "	2 "	Tramways - - - - -	£12,000 0 0
			Total	£22,000 0 0
Deduct Railway No. 7	£8,350			
" Tramway No. 6	600			
	£9,950		Say	£9,950 0 0
			Total	£12,050 0 0
Add for Rolling Stock, Sheds, Cans &c.			Say	£24,000 0 0
" Cost of Order in Council			Say	£2,500 0 0
			Total cost	£48,550 0 0

SCHEDULE E.

CITY AND PORT OF LIMERICK RAILWAY.

Approximate Estimate of Cost per Mile of Single Line of Railway, including Purchase of Land, Contingencies, Professional and other Charges.

		Rate.	£	s.	d.
5 acres	To Purchase of Land	£20	400	0	0
3,580 yds. Linl.	" Fencing, including accommodation gates	2/-	352	0	0
30,000 yds. Cub.	" Forming for permanent way, including excavation, forming embankments, trimming slopes, &c.	1/6	3,200	0	0
Here yds	" Provision for Culverts, say		300	0	0
3,580 yds	" Soling formation, ballasting and boxing 18 feet wide	6/-	1,066	0	0
9,000 No.	" Sleepers	8/-	800	0	0
120 tons	" Permanent way rails weighing 80 lbs. to the lineal yard	£12	1,512	0	0
12 tons	" Fastenings	£20	360	0	0
1,760 yds. Linl.	" Laying permanent way, including all necessary cutting, drilling and fitting	2/-	112	0	0
2 No.	" Apportionment per mile of cost of three crossed level crossing houses, £200, say	—	200	0	0
1 No.	" Apportionment per mile of cost of forming junction with G.R. & W. Railway £2,000, say	—	700	0	0
Iron	" Mile and quarter-mile posts and Gradient Boards, say	—	5	0	0
	" Telegraph, complete, say	—	50	0	0
	" Provision for additional works at, say, £10 per cent	—	800	0	0
			£8,870	0	0
	Add, for Professional and other Charges, say,		1,180	0	0
	Total Cost per Mile		£10,050	0	0

SCHEDULE F.
CITY AND PORT OF LIMERICK RAILWAY.

Approximate Estimate of Cost per Mile of Single Tramway, including Contingencies, Professional and other Charges.

FORMATION.		Rate.	£	s.	d.	£	s.	d.
2,300 Yds. Cub.	- Excavation in Foundations to an average depth of 15 inches	2/-	230	0	0			
880 " "	- 8 to 1 concrete in foundations 6 in. thick	50/-	280	0	0			
								1,100 0 0
PAVING SETTS.								
1,350 Tons	- Paving Setts	30/-	2,250	0	0			
" "	- Add for cartage and stacking on site	5/-	375	0	0			
								2,625 0 0
RAILS AND FASTENINGS.								
126 Tons	- Permanent Way rails weighing 60 lbs. to the broad yard	41/-	1,312	0	0			
Items	- Extra on last for Points and Crossings, say		250	0	0			
12 Tons	- Fastenings, etc.	43/-	260	0	0			
								2,072 0 0
LAYING AND PAVING.								
1,760 Yds. Linl.	- Laying Permanent Way, including concrete packing and all necessary cutting, drilling and fixing	5/-	490	0	0			
5,890 " Supl.	- Paving, grouting, etc., complete	5/-	1,290	0	0			
								1,780 0 0
			Total	27,075	0	0		
Add, for Contingencies, Professional and other Charges, say,				255	0	0		
			Total Cost per Mile	27,330	0	0		

SCHEDULE G.
CITY AND PORT OF LIMERICK RAILWAY.

SUMMARY OF Cost per Mile of Single and Double Line of Tramway laid on old and new construction.

	New Construction.	Old Construction.
Formation	£1,100	—
Paving Setts	£2,625	—
Rails and Fastenings	£2,072	£2,072
Laying and Paving	£1,780	£1,780
Contingencies, etc.	£ 255	£ 255
Total cost of Single Line	£4,500	£4,400
" " Double Line	£17,320	£8,800

Note.—Width of Foundation for Single Line, 9 Feet.
" " Double Line, 18 Feet.

SCHEDULE H.
CITY AND PORT OF LIMERICK RAILWAY.

TABLE showing Cost of Single and Double Line of Tramway, including Contingencies, Professional and other Charges.

Note.—New construction coloured YELLOW, and old GREY, on Plan.

No. of Tramways.	Total Length M. F. C.	Single or double line	Old or new construction.	Length in Chains	Cost per Chain	Cost in £.	Total Cost in £.	Observations
1	0 6 3	Double	New	15	114	2,410	2,410	
		"	Old	48	110	5,280	5,280	
2	0 1 6	"	New	3.5	214	749	749	
		"	Old	12.5	180	2,250	2,250	
3	0 0 6	Single	New	6	55	330	330	
4	0 0 4	"	New	4	55	220	220	
5	0 2 2	"	New	28	55	1,540	1,540	All taken as new construction.
6	0 1 1	"	New	11	55	605	605	
1 4 2							£12,970 Total £13,000 Sag. for Tramways.	

APPENDIX No. 20.

REPORT of Sir John Pender Griffith, M.Inst. C.E. on Proposed Improvement of Galway Harbour. Handed in by Mr. W. N. Bluns, B.E., Harbour Engineer, Galway, during his Examination on 18th September, 1918.

Rathmines Castle, Dublin,
17th January, 1914.

Dear Sir,

In accordance with the wishes of the Galway Harbour Commissioners, as conveyed to me in your letter of the 23rd August, 1913, and the 2nd September, I visited Galway Harbour on the 30th September. I was met by the Commissioners' Engineer, Mr. Wm. N. Bluns, B.E., who accompanied me on my inspection of the Harbour and Docks at low water and high water on that date. The tides were exceptionally favourable for my inspection, and I had very satisfactory opportunities of making myself acquainted with the circumstances and requirements of your port. I had also the advantage of discussing the situation both with your Harbour Master and Engineer.

Mr. Bluns has handed me copies of various reports relating to the Port of Galway made during the past 60 years by Mr. Alexander M. Rosdell, Mr. S. U. Roberts, Mr. B. B. Stoney and Mr. James Price. I have also had the benefit of seeing Mr. Bluns's report, dated the 30th December, 1912.

Mr. Stoney, in his report dated the 5th January, 1880, entered fully into the needs of the Harbour of Galway at that date, and expressed his own opinion in the following sentence:—"I believe that the most essential thing for the progress of the Port of Galway is to provide deep water berths, if at all practicable within the resources of the Board."

The dock and works designed by Mr. Stoney and Mr. Price aimed at providing such deep water berths, where vessels could lie afloat and enter the dock without having to discharge part of their cargoes into lighters in the bay.

With this object the Commissioners adopted the design of Mr. Price, and about 30 years ago began the construction of a deep water dock to the eastward of the entrance to the old Commercial Dock. The lower portion of this dock was excavated out of the solid rock—the upper portions of the quay walls and the dock entrance are masonry. The bottom of the dock is about twelve feet below Admiralty low water of spring tides, with a rise of tide of eleven feet at neap, and nearly fifteen at spring tides. There is, therefore, a depth in the dock of 23 feet and 37 feet respectively at neap and spring high waters. It would, therefore, be able to allow vessels drawing 23 feet to enter the dock even at neap tides.

Between £40,000 and £50,000 was spent on the work, but the gates never worked satisfactorily, and the depth of water in the approach channel being only three feet at low water of spring tides, barred the entrance, and prevented any useful results being achieved by this large expenditure. I presume that financial difficulties are the only reason for nothing having been attempted to remedy this state of affairs and produce some return for the outlay referred to.

At present the proposed deep water dock is only a tidal basin, filled with sand and open to the ebb and flow of the tide, where only small vessels berth which are prepared to lie aground.

I have given careful consideration to this state of affairs, and have come to the conclusion that all efforts should be concentrated in utilising the works already constructed, and in obtaining some return for the large capital expenditure incurred more than a quarter of a century ago, on what, so far as deep water accommodation is concerned, is practically of no value and is almost derelict.

No use can be made of the dock for the purpose for which it was constructed, no matter how perfect its equipment might be, unless the approach channel from the bay to the Dock entrance is deepened so as to allow vessels of deep draught up to the Dock. It is to this aspect of the problem that I would specially draw the Board's attention. It seems to me that until the question of improving the approach from the sea is settled, it is scarcely worth while considering other details, even such as the condition of the Dock gates.

The first question to settle is what depth should be aimed at for the approach channel from the sea, and what should be its width. We are at once met with the fact that this channel cannot be formed simply by dredging, for a barrier of rock of the hardest quality is met with for some 400 feet outside the dock entrance.

The cost of dealing with this by sub-marine drilling and blasting would be almost prohibitive, but fortunately modern engineering science has placed at our disposal sub-aqueous rock cutting plant which brings the work within the range of practical politics. The Lohrntz patent Rock-breaker is a thoroughly acconed and practical appliance. It has been used extensively in the Suez Canal, the Manchester Ship Canal, the Hudson Canal, U.S.A., and the Panama Canal. A small plant was used some years ago at Limerick. The Aberdeen Harbour Commissioners have at present working in their harbour one of the latest examples of this rock-breaker. It is working successfully in very hard rock similar to that in Galway Harbour, and this machine embodies the latest improvements. I would recommend the Harbour Commissioners to undertake the removal of the rock barrier outside their dock entrance by such means. The channel should be deepened at least to the level of the deep water dock, or about twelve to thirteen feet below Admiralty low water. This will involve the breaking up of the rock over a considerable area for a depth of about nine feet. I estimated that about 54,000 cubic yards of rock would have to be removed, and I have shown in hatched red lines on the accompanying plan the area of rock which I think should be removed. The area of rock which I propose to remove may appear somewhat excessive, but provision has been made to allow long vessels coming to Galway to swing outside the dock entrance. As the dimensions of the deep water dock would not permit of such swinging being done inside the dock I consider this to be of great importance. I have made extended inquiries as to the possibility of the Board purchasing a second-hand breaker or hiring one, but I have been unable to find any such plant available. The more modern breakers are at work, and it would be useless to attempt the removal of the rock at Galway except with a very heavy cutter. The cutter in use at Aberdeen is 22 tons in weight.

The cost of the Aberdeen rock-breaking plant, including barge, machinery, heavy mooring chains, a spore ran, the expenses of fitting out and setting to work, also the cost of inspection during construction, and all preliminary expenses amounted to £8,500. I am informed that the cost of breaking the rock, including the wages of crew, coal, stores, new points, lashing ropes, and salaries of assistant engineers setting out the work is 2s. 8d. per cubic yard. At Aberdeen the work is subject to delay from many causes, such as the number of large vessels entering and leaving the harbour, and although the site in which the breaker works is entirely within the breakwaters, yet in easterly winds there is a considerable swell, and it is also exposed to heavy floods from the river Don. In winter it has been found necessary to lay up the rock-cutter as there is no chance of continuous working. I believe Galway to be much more favourably situated for such work, and I feel confident that the cost of rock-breaking there would be lower than at Aberdeen.

DREDGING OF THE OUTER CHANNEL.

The dredging of the channel outside Nemo's Pier and Rosmore Point presents no engineering difficulties, and could be done either by contract or with a hired dredger. A channel of at least 300 feet wide with 12 to 15 feet of depth at low water of spring tides should be aimed at. The direction of the deepened channel outside Rosmore Point and Nemo's Pier has been fixed so as to take the fullest advantage of the sector produced by the flow of water from Lough Corrib and Lough Aithalia. The channel to the dock having been secured, the work of the next importance is the provision of gates for the dock and a wave screen to shelter the gates in rough weather. I am not in a position to say whether any use could be made of the old gates, as I have not had the opportunity of examining them. The probability is that totally new gates will have to be provided, and new arrangements made for opening and closing them. This will involve closing the entrance by a dam and pumping out the dock.

DREDGING THE DOCK.

A large accumulation of mud has formed in the dock and the cheapest way of dealing with this is to dredge out the dock before closing it for repairs. When the dock is closed and pumped out it will be possible to excavate any deposit which the dredger has failed to reach.

PIER.

For the safety of vessels entering and leaving the dock it is essential to construct a pier on the north-east side of the dock entrance. This would allow vessels to be safely outside the entrance until docking time and get rid of the risks caused by the currents in and out of Lough Aithalia and the river Corrib. In addition to this the pier would, I believe, be of immense advantage to the fishing boats, and allow them to come in and land their fish at any time of tide. It would also allow the Arvan Isles steamer to arrive and sail independently of the tide. It would be very desirable to make the berthing on both sides of the pier available for coasting or fishing vessels, and with this in view I have included the necessary rock-cutting on the north-eastern side of the pier.

CONNECTION BETWEEN DEEP WATER DOCK AND OLD COMMERCIAL DOCK.

Frequent references are made in the reports to a connecting channel between the deep water dock* and the Commercial dock, so that vessels when partly discharged may be moved into the old dock. Such an entrance would have undoubtedly many advantages if the Board see their way to provide the funds. In my opinion it takes second rank to the works which I have previously described. I have shown, however, on the plan the form of inner entrance passage which I would recommend if it is to be made.

IMPOUNDING THE WATERS OF LOUGH AITHALIA.

Mr. Bluns, in his report of the 10th December, 1912, has suggested the desirability of impounding the waters of Lough Aithalia, with the object of discharging them rapidly at or near low water, and of producing a force secur to assist in the maintenance of the deepened channel. I have not sufficient data to express my

views as to the desirability of carrying out this ingenious proposal. Before forming a definite opinion it would be necessary to have very extended tidal observations as to the present ebb and flow of the water of Lough Atalia. It would be quite worth while for the Board to carry out such an investigation, so that the value of the proposed impounding might be fully determined. I do not, however, think that for some time to come any great need will be found for additional access beyond what is already provided by the waters of Lough Atalia and the River Corna.

ESTIMATE.

I estimate that the cost of rock excavation, dredging the channel, building the pier, providing new dock-gates and dredging the present accumulation of mud out of the dock will amount to £61,110, and that the time necessary to complete the works will be between four and five years.

The following are the items of the estimate:—

	£	s.	d.	£	s.	d.
Rock excavation	9,500	0	0			
Pier	16,327	0	0			
Dredging channel	17,500	0	0			
Removal of Dock-gates and Dredging Dock	5,500	0	0			
				47,827	0	0
Contingencies, ten per cent.				4,783	0	0
Salaries rock-breaker				8,500	0	0
Total				£61,110	0	0

If the Board decide to construct the passage from the deep water dock to the old Commercial dock, I estimate the additional cost will be £12,000, and that it would take one year to construct. As already stated, I have had the benefit of studying Mr. Eames's report of the 10th December, 1912, and he has placed the plans of his proposals in my hands. It will be seen from my report that I have adopted generally his recommendations. I am also greatly indebted to him for his assistance in the consideration of the various details of the somewhat complicated problems which have been submitted to me, while his knowledge of the physical and tidal conditions of Calway Bay and Harbour have been invaluable.

Yours faithfully,

JOHN PURGER GRIFFITH, M.L.S.C.E.

APPENDIX No. 21.

EXTRACT from an Address delivered by the Most Rev. Dr. Cleeve, Bishop of Elphin, before the Canadian Club, Montreal, on 10th December, 1907, on the occasion of a visit to the Canadian Capital of a Delegation to the Dominion Government relative to the project of an All-Red British Route via Blacksod Bay and Halifax, Nova Scotia.—(Handed in by the Very Rev. Canon J. J. Heyarty, P.P.V.F., Edmunt, during his examination on 18th September, 1918.)

BLACKSOD BAY TRANSATLANTIC PORT PROJECT.

DETAILS OF THE SCHEME

The scheme, in its most comprehensive aspects, includes the following proposals:—

No. 1. "The establishment of a service between Halifax (Nova Scotia) and Blacksod Bay (on the West Coast of Ireland) of a line of first-class steamships, capable of crossing the Atlantic in 34 days, at an average speed of 25 knots an hour (the distance between Halifax and Blacksod being 2,113 knots)."

No. 2. "The establishment of Ferries between the East Coast of Ireland (where the Irish Channel is narrowest) and the West Coast of England and Scotland by means of steamships so constructed as to be capable of conveying passenger and goods trains entire from port to port, without disturbing passengers or unloading trucks. The difference in gauge between the English and Irish Railways will be got over by changing the bogies on the carriages before these are embarked upon the ferry." Similar ferries could, and, no doubt, would, be put on the other established Irish Mail routes.

No. 3. "The construction of such railways in Ireland as may be necessary, in conjunction with existing lines, to provide for an express passenger service between Blacksod Bay and the East Coast of Ireland at a speed not less than 50 miles an hour."

The first part of the scheme proposes the building of three large steamships, costing £900,000 each, or £2,700,000 in all, and so equipped with the latest turbine machinery that they will travel at the rate of 25 knots an hour, and traverse the distance of 2,113 knots that lies between Blacksod and Halifax in 34 days. Were the proposal to contemplate running to Liverpool from Halifax, at least four such steamships would be required, costing £3,600,000. Thus at the very outset there is effected a saving of £900,000 by adopting the Blacksod-Halifax route. When to this is added the saving of the £4,000, referred to above, for each journey, or £8,000 a week both ways, the advantage of the scheme now submitted becomes at once apparent.

The part of the scheme which provides for the construction of steam ferries presents no engineering difficulties. Such ferries are being run, of recent years, for both passenger and goods traffic, from Gjedden in the Island of Zealand, over 27 miles of the open Baltic, and on Lake Michigan, in the United States, where the waves rise in winter to a height of 27 feet, as compared with 15 feet in the Irish Sea, such ferries are in use, and make runs of from 60 to 100 miles across the Lake. On Lake Baikal, in connection with the Siberian Railway, a steam ferry has been in use for many years, and during the recent war between Russia and Japan rendered good service. Hence there can be no difficulty in providing such ferries between Larne and Sumner.

BLACKROD BAY.

It will appear from what has already been stated, that we have the recommendation of our scheme on the geographical position of Blackrod Bay, and on its many natural advantages as a terminal shipping harbour or a port of call. The advantage of its geographical position will become apparent if we compare the distance from Blackrod Bay to any point on the East Coast of the American Continent with the distances from any other available English or Irish port to the same point. Its natural advantages will become apparent from a brief description of its approach, extent, and environment.

The following are the distances between the principal available ports in England and Ireland, and Halifax (Nova Scotia) and New York, on the East Coast of the American Continent:—

1. Blackrod Bay (Ireland) to Halifax	—	—	2113	nautical miles.
Galway	do.	—	2184	do.
Queenstown	do.	—	2225	do.
Merilla	do.	—	2278	do.
Liverpool (England)	do.	—	2450	do.
Southampton	do.	—	2530	do.
2. Blackrod Bay (Ireland) to New York	—	—	2784	do.
Galway	do.	—	2806	do.
Queenstown	do.	—	2849	do.
Merilla	do.	—	2961	do.
Liverpool (England)	do.	—	3029	do.
Southampton	do.	—	3209	do.

It is, therefore, clear that the Blackrod-Halifax route has an advantage in ocean travelling alone over the Galway-Halifax route of 71 nautical miles; over the Queenstown-Halifax route of 119 nautical miles; over the Liverpool-Halifax route of 337 nautical miles; and over the Southampton-Halifax route of 417 nautical miles. If the main object of the All-Red British route, therefore, be to shorten the sea-passage between Canada and the British Isles, the claims of Blackrod Bay to recognition as part of the scheme are simply irresistible.

Nor will its claims be less strong when its natural advantages are considered, in comparison with the insuperable difficulties and deficiencies presented by any other British or Irish Port that aspires to rivalry with it.

Blackrod Bay is situated in the most westerly part of Mayo, and has a superficial area of 45 square miles. It possesses a sheltered coast line between Doobocora Head and Blackrod Point of 43½ miles, and its depth at all states of the tide is so great that the whole British Navy could find safe anchorage in its waters. Its entrance, which is bounded on the south by Achill Island, and on the north by the Mullis promontory, is 3½ miles wide, and varies in depth from 10 to 35 fathoms; and, there being no bar, ships of the largest draughts can sail in at full speed at all states of the tide. Near Tarron Point, to the left of the entrance, where it is proposed to erect the pier which forms a part of the scheme, there is a depth of from 8 to 10 fathoms up to the face of the cliff. While the projecting headland of Achill, which at Ben Croghan rises to a height of 3,182 feet, forms a natural breakwater to the south and south west, whence the prevailing winds, the bold promontory of the Mullis affords complete shelter to the west, so that it is true to say, and has been often said, that, while storms rage outside the Bay, the surface of the water inside is often as placid as that of Lake Geneva. The approach by sea is absolutely safe in all weathers and at all hours of the day or night. Ben Croghan, which rises to a height of 3,182 feet, stands to the south of the entrance, and is visible for a distance of 85 miles at sea; and such is its bold contour that even in starlight its position is unmistakable. To the north of the broad approach to the Bay, at a distance of about five miles from the entrance, stands Blackrod Lighthouse, at a height of 286 feet above the water, and its revolving sector of red light to the north-east, and steady white in the complement of the circle, casts a brilliant glow across a distance of 22 miles. The "Coast of Ireland Pilot," which is published by the Admiralty, says of Blackrod Bay:—

"Blackrod Bay is one of the finest bays on the West Coast of Ireland, is easy of access, and affords secure anchorage for a large number of vessels; it was always a principal resort of Her Majesty's ships stationed on this coast, and one for which they never hesitate to run in bad weather. A secure roadstead is afforded to vessels of heavy draught on the west side of the Bay, below Ardally Point, sheltered from the violence of the sea by the Mullis Peninsula. The entrance between Davillam and Saddle Head, the north point of Achill Island, is about 3 miles wide with a depth of 30 fathoms, and is easily recognised by day by the bold promontory of Achill, 2,182 feet high, and by night, by Blackrod Light standing on the north side of the approach."

Knight, in his excellent "History of Erris," states:—

"The entrance to Blackrod Bay, between Davillam and Achill Head, is 3½ miles wide, at Doobocora Head 4½, and at Kinfella, the narrowest point, 3. . . . Great safety, extent, and most westerly position, with so much difference of time in its favour, are the great leading features to make Blackrod Bay the port most desired for a terminus of such vast communications as those between America and Great Britain."

Mr. Ball, Civil Engineer, as quoted in Knight's "the Irish Highlands," gave the following evidence before a Committee of the House of Commons on Public Works, 12th June, 1855:—

"Blackrod Bay is very large and roomy, and work to any extent might be constructed within it to hold ships. It also extends much seaward into the Atlantic. As Blackrod is to be found an abundance of the finest granite in the world, extremely well suited for engineering work of all kinds. (Q.) Do you consider Blackrod Bay particularly well suited for steam navigation with the shores of America? (A.) I do; for it lies near the straight line drawn on the arc of a sphere. Blackrod, outside Blackrod, is 1,610 geographical miles from St. John's, Newfoundland. (Q.) Would vessels at all times be able to leave Blackrod Bay? (A.) Oh, yes, it has a large, roomy, and spacious entrance, of great area within, where ships' haws to any extent might be constructed."

COMPARISON WITH OTHER PORTS.

It is well to add that Blackrod Bay is almost entirely free from fogs, only four per cent., on an average, having been registered each year for a period of five years. Then it is free from the congested traffic which

blocks the entrance to the English ports, and, unlike the Mersey or the Solent, is absolutely independent of tides, so that the aid of tugs would never be required. From this point of view, compare Blackod Bay with other ports in Ireland and England.

Of the entrance to Novfoll, the "Coast of Ireland Pilot" says: "Lough Foyle is for the most part occupied with shallows." It is not on the Western seaboard, and can be used at best only as a port of call.

Of Galway Bay the "Coast of Ireland Pilot" says: "When the sea is high, the swell through the North Sound (between Arranmore and the Galway coast) rolls along the shore of the North Island, breaking forward at the head, and depriving it of the shelter it might be supposed to afford against the westerly winds." And, in another place, the same authority states: "Galway Bay affords no well-sheltered anchorage for large ships."

Of Queenstown Harbour the "Coast of Ireland Pilot" says: "Turbot Bank and Harbour Rock are nearly in the middle of the entrance, and much in the way of large ships working in and out. On passing the entrance, the harbour at once unfolds itself, but a comparatively small portion of the wide expanse is available for navigation, the greater part of it being occupied by shallows."

Of Liverpool, the Sailing "Directions for the West Coast of England" says: "When approaching either St. George's Channel or the Bristol Channel from the Atlantic, no opportunity of ascertaining and of progressively correcting the ship's position by astronomical observations should be neglected. Fog, bad weather, and the long nights of winter frequently render it impossible to obtain a position by these means, in which case the approach to these channels should be made with extreme caution, as, under such circumstances, the course, steer, the log, lead, and nature of the bottom, are the seaman's only guide." . . . 'In a S.W. gale, when accompanied by rain, the wind blows in violent gusts, and sometimes veers suddenly to the N.W. or even N.E. without losing strength. In crossing the bar during strong north-westerly winds, at which time there is considerable sea, a vessel should wait until there is at least five feet more water on the bar than the draught of the vessel.' . . . "The entrance to the Mersey is obstructed by banks to a distance of six to eight miles off shore. The numerous sands that encumber the entrance to the Mersey will be better understood by a reference to the chart than by reading the most elaborate description; in fact, any attempt to convey by words correct ideas of the extent and form of these banks and the intricate channels between them, would be useless."

It is notorious that fogs are so frequent and so dense inside and outside the Port of Liverpool, that American liners are often detained for five or six hours, and, when they do move, they are obliged to do so cautiously and at a very low speed.

Of Southampton, the "Channel Pilot" says, among other things which go to show the difficulties and dangers of the entrance:—

"Fog, bad weather, and the long nights in winter frequently render it impossible to obtain even the latitude, in which case the approach either to the Solly Isles or to Ushant should be made with extreme caution. . . . The mariner, on entering the channel, should bear in mind that, from the ever-increasing traffic in these narrow waters, one of the greatest dangers to his safe navigation lies in the risk of collision; this should, at all times, call for the utmost vigilance and care. It is well to remember that, in addition to the numerous steamers and sailing vessels following the ordinary track, and the number of the latter crossing and re-crossing it, in turning to the windward, as well as fleets of trawlers which may occasionally be met with, and mail and passenger steamers of high speed passing and re-passing, and crossing his track nearly at right angles"—all these constitute a state of congestion of traffic, which renders navigation in such circumstances perilous in the extreme. (See the admirable brochure on "Halifax (Nova Scotia) to Blackod," by the Rev. W. O'Reilly, P.P., Kilsala, under the nom-de-plume of "Ocmara.")

CLAIMS OF BLACKOD ESTABLISHED.

Now that the advantages of adopting the Blackod-Halifax connection in preference to any other have been made clear, we are in a position to examine the reasons—Imperial, national and local—which recommend it to the promoters of the "All-Red British Route" for incorporation in their scheme.

SCHEME FROM IMPERIAL STANDPOINT.

The arguments from the point of view of Imperial policy, in addition to those indicated above in support of an All-Red Route of some kind, would be based on speed, Colonial development, and Imperial strategy. The speed of transit of the Blackod-Halifax route may be set forth in the following time table, prepared by the promoters of the scheme:—

Atlantic Ocean	25 knots
Pacific Ocean	19 knots average.
Leave London, June 1st, Friday, 7 p.m.		
Arrive Blackod, June 2nd, Saturday, 9 a.m.; leave 10 a.m.		
Arrive Halifax, June 5th, Tuesday, 6 to 9 p.m.; leave 10 p.m.		
Arrive Vancouver, June 9th, Saturday, 10 p.m.; leave midnight.		
Arrive Honolulu, June 15th, Friday, 6 a.m.; leave noon		
Arrive Suva, June 21st, Thursday, noon; leave 6 p.m.		
Arrive Auckland, June 24th, Sunday, 7 a.m.; leave noon		
Arrive Sydney, June 27th, Wednesday, 6 a.m.		
London to Sydney, 25 days 11 hours.		
London to Auckland, 22 days 12 hours.		

It thus appears that a journey which will take 35 days by the Suez Canal, can be accomplished in 22 days 12 hours by the Blackod-Halifax-Vancouver route; and this without the inconvenience inseparable from the slow journey from Suez to Aden. But to confine ourselves to the route in which we are immediately interested, it appears that the journey from London to Blackod can be accomplished in 13½ hours; the passage across the Atlantic from Blackod to Halifax in 3½ days; and the journey from Halifax to Montreal in 22 hours. Hence this route brings Montreal within five days of London, Chicago within six, Vancouver within eight, Yokohama within so-called, Auckland within twenty three, and Sydney within twenty-six. It may confidently be asserted that no other possible route can be attended by the same advantages from the point of view of time or speed.

From the point of view of Canadian development and colonization, the Blackhead-Halifax route presents advantages to which no other can aspire. Though we are much opposed to emigration from Ireland, yet, denounce it as we may, emigration to a large extent cannot be prevented. Accepting this as a *prelimine* we consider it much more to the interest of our young emigrants that they should go to a country where their work will be of the character for which their early agricultural training has prepared them, rather than to the overgrown cities of the States, where their surroundings are not always congenial to their early training and sense of life, and where, in consequence, they often get morally submerged never to rise again. From the Canadian point of view, this is also a consideration of the highest importance.

From the standpoint of Imperial strategy, the development of Blackhead Bay, as a strong position on the outposts of the nation, could not be too strongly recommended. On this point we recommend for perusal the letter of Vice-Admiral Sir Charles Campbell, K.C.M.G., C.B., D.Sc., to Sir Thomas Troubridge, Bart., one of the promoters of the scheme.

SCHEME FROM IRISH NATIONAL STANDPOINT.

From the Irish standpoint we view the adoption of the Blackhead-Halifax route, in face of the arguments already set forth, to be a matter of simple justice, as we should view the adoption of any other route to involve nothing less than a national wrong. Ireland pays her part of the subsidy for carrying the mails, and will pay her part of the All-Red Route subsidy, wherever it may lie. Surely, then, it is not unreasonable, if we can do so without detriment to the other interests involved, that we should claim our share of the advantages that will be derived from such a project. "No taxation without representation" should find application here, more especially when nature herself has created and established the basis of our claim in placing Blackhead Bay on the Western seaboard of our country.

Again, Ireland derives no benefit whatever from the vessels that call at Queenstown or Moville. The provisioning of these vessels is done in the Liverpool and Glasgow markets. They drain our country of its best brain and manhood and give us nothing in return. It is surely not too much to expect that in a country whose industries have languished through bad laws, and whose people have, to a large extent, lost the industrial spirit, something should be done towards the revival of that spirit, and the making of compensation for those laws. If the country around Blackhead Bay were to get the catering for even one transatlantic steamship per week, it would mean the creation, in the poorest and most neglected part of Ireland, of a consumption equal to that of a town of 3,000 or 4,000 inhabitants; or, as people live in Ireland, of more than 10,000 inhabitants. Add to this the amount of employment that a first-class railway and harbour would furnish, not alone to the locality but to the country at large, and the importance of the realization of this scheme, from Ireland's point of view, will be easily understood.

Moreover, though Ireland is one of the most attractive and interesting countries in the world from every point of view, yet the tourists who visit her shores do not form a tithe of the sightseers that cross the Atlantic every year. They land at Liverpool or Southampton, spend their money in England and the Continent, and pass by unnoticed the most charming scenery in the world. In most of the Continental cities of interest, they spend their money on gawags, which are cast aside before they return to America, whilst our Irish cottage industries, which would be of so much practical usefulness to them, are languishing for want of encouragement, and even when successful, cannot easily find a market. What a healthy stimulus would be given to such humble efforts on the part of our Irish girls, and with what far-reaching results on the statistics of emigration, if thousands of wealthy visitors from America, Australia, and Canada were to land weekly on our shores and visit the beauty spots of our country! The effect of adopting the Blackhead-Halifax connection as part of the All-Red British Route, on this department of Irish industrial life, would be simply incalculable.

Finally, may it not be asked, how much more profitable it would be for the Irish agricultural labourer, who now goes to England and Scotland annually, and who, during his sojourn there, has to live in conditions are unworthy of the dignity of our human species—piggery in bay lotts and outhouses, without suitable sanitary accommodation, without properly cooked meals, without opportunity of corresponding with their religious duties on Sundays or holidays—how much more preferable, I ask, would it not be for such men, if they could reach the shores of Canada, at small cost in 3½ days, earn a considerable sum of money during the eight working months of the year and return to their families in the winter with the savings of their earnings to lay aside for the future upkeep of the home!

What a change all this would mean for Ireland! And yet what has been said covers only a few of the standpoints from which the bearings of an All-Red British Route, passing through Ireland, on our national life and industries, may be viewed.

SCHEME FROM LOCAL STANDPOINT.

The part of the All-Red Route in which just now we are immediately interested is the construction of a Railway from Collooney in the Co. Sligo, to Belmullet in Mayo, and thence to Tarron Point on Blackhead Bay. Though this aspect of the question may not appeal so forcibly to those who view the question in its comprehensive form, yet it becomes my duty to refer to it. And I would in the first place point out that the scheme does not compete with the interests of any other port in Ireland. It is the fact that, at the present time, no Canadian line calls at any Irish port, and therefore the establishment of the Blackhead Bay route would be a clear gain to Ireland without trespassing in any way upon the advantages enjoyed at present by any of the Irish ports, such as Queenstown. It was owing to the local considerations involved that the Standing Orders of the House of Commons were suspended, that a Bill was framed and submitted for the approval of Parliament, that a Parliamentary Inquiry lasting over ten days was held at great expense to both sides, and that finally the sanction of both Houses, and the assent of His Majesty the King, were obtained for the "Collooney, Ballina, and Belmullet Railway and Piers Bill." It cannot, therefore, be a matter of small importance to Ireland, but least of all to the people of those western districts through which the railway under consideration will be constructed, and whose people will derive so much permanent advantage from it. Judged by the volume of public interest awakened by the project in the whole western province, and expressed in resolutions of public representative bodies and innumerable letters that have appeared in the Press from time to time, this proposed line of railway from Collooney to Blackhead would appear to foreshadow development of the local industries in Sligo and Mayo, to which the people of these

counties look forward with the keenest anxiety and interest. This will appear also from the evidence furnished to the Parliamentary Committee that investigated the project in the House of Commons in the month of May last by several representative witnesses from the West of Ireland. A few of these witnesses hold positions of prominence which entitle them to explicit and detailed reference on an occasion like the present.

(1.) The Lord Bishop of Killala gave evidence to show that, in the joint baronies of Erris, Tirawley, and Tiesragh, there is an area of 945 square miles with about 60,000 of population; and for this vast district, though poor and congested, there is no railway accommodation except the short line from Foxford to Killala, a distance of sixteen miles. In the Lordship's opinion, this neglect by the Government and Railway Companies of the country, led in no small degree to the depopulation which took place in these baronies between 1851 and 1901, from 88,121 in the former year to 50,600 at the date of the last census.

(2.) The Right Rev. Monsignor John O'Hara, P.P., of Crossmolina, stated that, owing to the absence of adequate railway accommodation, in the north-western district of the County Mayo, cattle purchased at local fairs are driven 20 or 30 miles before they can reach the railway trucks which transfer them to the Dublin or Glasgow cattle markets; while calves bought in the North of Ireland for storage on the mountain pastures of Mayo must sometimes travel as much as 50 or 60 miles before they can reach their destination. All this means great hardships to the cattle drivers, and considerable loss in the condition, and, therefore, in the value of the cattle.

(3.) The Rev. John Hegarty, P.P., of Killesnoona (Erris), submitted evidence to prove that in his parish of 80 square miles, and 8,833 inhabitants, there was no railway accommodation whatever; and that, therefore, the granite quarries at Tarmoe and the slate quarries and copper mines at Belderrig both of which, if worked, would prove amply remunerative, remain utterly undeveloped. The Rev. Michael Munnally, A.M., of Ballycastle, stated that the best fishing bays along the Western Coast of Ireland lie between Erris Head and Belderrig, but that for want of railway accommodation, and the consequent inaccessibility of getting the fish to market in proper condition, the rich harvests of the sea that would otherwise become available in these districts, are utterly worthless to the country. With a seaboard, the most varied and the richest in the world, from the fisherman's point of view, yet, in the West of Ireland most of the fish consumed is procured from Grimsby, on the East Coast of England, through the Dublin fishmongers. This, surely, is a condition of things that calls for immediate remedy.

The late Mr. Bernard Collier, High Sheriff of the Co. Sligo, and I may say, submitted evidence on behalf of the portion of the County Sligo that would be served by the proposed railway to prove that the extensive agricultural districts between the Ox Mountains and the sea, known as the Barony of Tiesragh, suffered great hardships for want of railway accommodation. Farmers who bring their cattle, butter, or hay to market; juremen who are obliged to attend the Assizes and Quarter Sessions in Sligo, cattle dealers who go to fairs at Dromore West and Eskay—all are put to great inconvenience because of the absence of railway accommodation throughout this district. While these witnesses tendered such varied evidence they were unanimous in the opinion that, if the railway now under consideration for construction were built, not only would these inconveniences be remedied, but American and Canadian tourists would be attracted to visit the boldest cliff bluffs in Ireland on the North Coast of Mayo, and the most picturesque and romantic lake scenery in the world around Sligo and Dromahair.

APPENDIX No. 22.

Copy of letter from Admiral Sir Osborn Bridges, G.C.B., relative to Blackod Bay as a Transatlantic Port, put in by Mr. J. McGeehan, chairman of Belfast Board of Guardians and Member of Mayo County Council during his examination on 15th September, 1918.

Dealing with the selection of Blackod Bay as a port of arrival for ships bringing cargoes to the United Kingdom when the British Empire may be involved in maritime war, I am convinced that, looked at from the strategical point of view the selection would be highly desirable. The route to Blackod Bay from the principal areas which furnish our food supplies has the great strategic advantage of being more remote from a probable enemy's base of operations than other routes leading to the British Isles. At the same time the distance of its most important sections from our own naval bases is not much, if at all, greater than the distance from them of important sections of other routes. The Blackod Bay route would be to a remarkable extent protected by its position alone. Thus it has the great merit of providing, as it were, no small part of its defence itself. The naval force necessary to defend it and keep it open in war might, therefore, be smaller than the force required for any other line of communication passing to the United Kingdom. As far as possible a line of communication should always be chosen where it is more difficult for an enemy to interrupt it than for the other side to defend it. The Blackod Bay route meets this condition exactly and, consequently, has a decided strategical superiority over other routes. The shorter a line of communication is, the more easily as a rule it can be defended. Here, with respect to routes from North America, the advantage of the Blackod Bay line is evident. Taking the routes from South America and South Africa and also those that pass round the Cape of Good Hope the advantage, though less plain at first sight is still considerable. It will be desirable, perhaps even compulsory, in time of war to keep the part of our trade-route lying between the Equator and the mouth of the English Channel rather farther to the westward than the line ordinarily followed in time of peace. In that case the Blackod Bay route, even in the matter of length, will retain the advantage. Utilization of the line of communication or trade-route need not be confined to conveyance of food supplies. The route can also be utilized for the conveyance of that which comes next in importance to food, viz., the raw material of our great manufacturing industries. Here again, owing to its being a shorter way from important sources of supply, we should find the Blackod Bay route of great advantage to us in time of war. It will be seen at once that the food supply of Ireland, as far as it consists of imports, will be greatly facilitated and in time of war made exceptionally secure by the

adoption of Blacked Bay as the port of arrival. By completing proper arrangements for the transport of commodities arriving by sea at Blacked Bay to other parts of the United Kingdom, the supply of sea-borne foodstuffs and other indispensable articles to Great Britain will certainly be made easier in war and in all probability more rapid and more regular. It may be said that it would not be necessary, if Blacked Bay is selected as a port of arrival, to fortify it on any but the most moderate scale. Also it would require only a small garrison, one of the advantages of the place being that its position largely secures it against a sustained attack by a naval enemy. It is to be borne in mind that, if Blacked Bay is to be a port of arrival, it will not prevent the use of other ports in war time, should circumstances render it desirable. The very fact of our being able to use Blacked Bay will help indirectly in the defence of routes to other ports as an enemy will be forced to realise the great advantage conferred upon us by ability to resort, when desired, to an alternative.*

APPENDIX No. 23.

SLIGO PORT.

SCHEDULE of overseas vessels for 10 years, handed in by Lieut. Colonel James Campbell, A.L., chairman of Sligo Harbour Commissioners, during his examination on 30th Sept. 1918.

Date of Arrival.	Vessel.	Draft of Water.	Tonnage.		Cargo.		
			Gross.	Net.	Description.	Tons.	
1907							
January 6 - - -	Tyneco	80½	3324	2159	Maize	4766	
February 23 - - -	Jarey	19	2469	1652	Maize	3643	
March 4 - - -	Manchester	21½	2624	1282	Maize	2949	
March 16 - - -	Shirley	22½	3231	3094	Maize	4103	
May 11 - - -	Newby	80½	2428	1997	Maize	2872	
May 16 - - -	Stat	21	2418	1554	Maize	3077	
June 12 - - -	Pendervan	21¼	2669	1706	Maize	3790	
June 25 - - -	Thomas Anderson	22½	2433	1635	Maize	3301	
July 16 - - -	George Boyle	80½	2540	1690	Maize	3496	
July 23 - - -	Aard	18½	3074	1987	Maize	4489	
August 1 - - -	Ferby	19½	2417	1443	Maize	3427	
August 27 - - -	Anatolia	21	2847	2485	Maize	4082	
October 14 - - -	Tyrodale	22½	2948	1884	Maize	4125	
November 28 - - -	Dumfries	18	2126	1362	Maize	3209	
1908							
January 25 - - -	Pendron	18½	218	1312	Maize	3342	
February 20 - - -	Trogano	20½	2442	1864	Maize	3248	
March 29 - - -	Ethel	19	2336	1491	Maize	3426	
April 22 - - -	G. R. Paroutis	19	2312	1489	Maize	3754	
May 2 - - -	Duke of Cornwall	19	1704	1081	Maize	2454	
May 23 - - -	Carl Lakshering	19½	2960	1291	Maize	3125	
June 1 - - -	Leopold II	20½	2328	1951	Maize	4246	
June 21 - - -	Calliope	19½	2883	1843	Maize	4343	
July 17 - - -	North Sands	20½	3389	2212	Maize	4864	
August 5 - - -	Pontop	20	2943	1971	Maize	4525	
October 4 - - -	Yuzany	20½	3060	1872	Maize	4545	
November 14 - - -	Hampshire	18½	2717	1728	Maize	4161	
December 21 - - -	Snowdon	20½	3189	2025	Maize	4293	
1909							
February 6 - - -	Pendron	18½	2108	1342	Maize	2831	
March 19 - - -	Eastgate	17½	1742	1084	Maize	2319	
March 30 - - -	Dunagath	19½	2494	1434	Maize	3168	
April 11 - - -	Duke of Cornwall	18½	1704	1081	Maize	2345	
May 23 - - -	Snowdon Range	19½	3080	1939	Maize	4055	
June 30 - - -	Hawwood	20½	3102	1992	Maize	4905	
July 19 - - -	Mandemey	20½	3048	1934	Maize	4253	
July 30 - - -	Evo	20½	3044	1903	Maize	3999	
August 26 - - -	Cyfartha	20	3014	1939	Maize	4376	
September 17 - - -	Sterna Bk	19½	1400	1297	Wheat	3092	
November 1 - - -	Craigside	21	3004	1908	Maize	4699	
December 26 - - -	Aras	19½	3071	1928	Maize	4456	

Date of Arrival.	Vessel.	Draft of Water.	Tonnage.		Cargo.			
			Gross.	Net.	Description.	Tons.		
1910.								
February 12	-	-	Westmoor	223	3501	2315	Maize	5340
March 31	-	-	Cass T. Jones	22	2422	1552	Maize	3380
April 18	-	-	Troglisoon	20	2272	1401	Maize	3017
May 25	-	-	Vera	2071	2225	1536	Maize	3530
June 10	-	-	Cardiff Hall	201	2004	1648	Maize	3715
July 7	-	-	Trogathan	178	2171	1276	Maize	3224
August 6	-	-	Talavera	194	2291	1511	Maize	4245
August 27	-	-	Snowdon	213	2122	1555	Maize	4806
October 2	-	-	Don Benito	20	2748	2225	Maize	4917
December 1	-	-	Sola	126	2103	1271	Maize	4408
December 23	-	-	Santenberg	201	2045	1242	Maize	4222
1911.								
February 8	-	-	Porter	164	2221	1254	Maize	4569
February 27	-	-	Hardanger	21	2412	1522	Maize	3360
April 24	-	-	Trosvigan	21	2422	1527	Maize	3311
May 2	-	-	Emma	129	2222	1572	Maize	3722
May 25	-	-	Castle Garth	220	2215	1672	Maize	3221
June 23	-	-	Cornubia	121	1726	1107	Maize	2427
July 6	-	-	Miles Coverdale	121	2202	1472	Maize	2672
July 13	-	-	Chenidia	202	2017	1222	Maize	3104
July 21	-	-	Collingwood	19	2222	1527	Maize	2922
September 2	-	-	Selby	178	2127	1364	Maize	2926
September 21	-	-	Tinker	22	2042	1242	Maize	4227
December 5	-	-	Miles Coverdale	124	2202	1472	Maize	2925
1912.								
January 12	-	-	Northfield	1710	2022	1322	Maize	2942
February 22	-	-	Moorby	128	2202	1572	Maize	2822
March 17	-	-	Doverdale	20	2422	1722	Maize	3212
April 21	-	-	Aden	19	2422	1572	Maize	2821
June 11	-	-	Venus	20	2122	2017	Maize	4742
July 1	-	-	Tuscany	21	2022	1272	Maize	4712
August 7	-	-	Rosefield	20	2022	1222	Maize	4227
September 7	-	-	Foston	202	2221	1274	Maize	4222
October 6	-	-	Farningford	21	2122	1222	Maize	4221
December 13	-	-	Sweethope	20	2712	2702	Maize	4541
1913.								
January 22	-	-	Dowgate	21	2111	1222	Maize	4221
March 12	-	-	Aneland	12	2422	1522	Maize	3222
May 20	-	-	Havke	207	2221	1722	Maize	3272
June 22	-	-	Newport News	122	2221	1222	Maize	4222
July 12	-	-	Katharina	1211	2222	1222	Maize	4212
September 6	-	-	Rowena	20	2017	1222	Maize	4222
September 23	-	-	Alfa Ek	10	1222	222	Wheat	1222
October 1	-	-	Kolyndale	22	2222	2214	Maize	4211
December 14	-	-	Radley	21	2222	1224	Maize	4222
1914.								
January 12	-	-	Beacondale	122	2222	1221	Maize	3222
January 22	-	-	De Negonopentes	122	2222	1221	Maize	4222
April 2	-	-	Hunala	122	2222	1221	Maize	3122
April 22	-	-	Bremer	122	2222	1221	Maize	2222
May 12	-	-	Baltique	12	2222	1221	Maize	2222
June 27	-	-	Crutland	21	2222	1221	Maize	4222
July 7	-	-	Trosvigan	2110	2222	1221	Maize	4222
August 21	-	-	Ewingwood	122	2222	1221	Maize	4222
October 12	-	-	Bagdad	222	2222	1221	Maize	4222
November 12	-	-	Martanan	21	2405	2122	Maize	4702
December 24	-	-	Arma	122	2772	2752	Maize	4572
1915.								
February 2	-	-	Boreby	12	2221	1222	Maize	4247
March 22	-	-	Anchondo	179	2272	1222	Maize	2227
April 22	-	-	Azul	122	2272	1227	Maize	4211
June 22	-	-	Klton	12	2222	1222	Maize	4227
July 27	-	-	Sweethope	122	2712	1702	Maize	4272
August 12	-	-	Alfalfa	20	2222	1217	Maize	4722
September 24	-	-	Antonia	122	2222	1222	Maize	2224
November 2	-	-	Durwin	122	2227	1227	Maize	4222
November 22	-	-	Alfalfa	20	2222	1222	Maize	4224
1916.								
June 12	-	-	Elrino	122	2722	1222	Maize	4222
August 4	-	-	Rosaura	12	1222	214	Maize	1722
September 12	-	-	Falkland	12	2222	1221	Maize	2272
December 21	-	-	Pandolis	212	2412	1222	Maize	2414

APPENDIX No. 24.

COPY of a letter, dated 11th September, 1918, and extract of a letter, dated 13th September, 1918, from Mr. Wm. Lalor, sometime Harbour Engineer of Sligo, enclosing copies of newspaper letters written by him from time to time advocating the development of Sligo as a Transatlantic Port. (Mr. Lalor's proposals were referred to by Mr. T. Scallan, M.P. for North Sligo, in his statement to the Sub-Committee on 29th September, 1918.)

34, Rathgar Road, Rathmines, Co. Dublin,
September 11th, 1918.

Sir Arthur Shirley Bann, M.P., Chairman Canal and Port Transport Facilities in Ireland Sub-Committee,
Shelbourne Hotel, Dublin.

Sir,

I enclose herewith, in a bound form, newspaper letters written by me, some of which I hurriedly sent you, some, upon the 1st inst., in which, in effect or explicitly, I support the view that Sligo Bay should be included in any Government investigation by experts, made for the purpose of determining the site of a State provided Transatlantic Liner Port upon the West Coast of Ireland.

These letters are based on the assumption that, whilst Blackrod Bay is in respect of latitude and longitude the best for such a port, its adoption is prohibited by the accompanying necessity of constructing a long mileage of railway, non-paying locally, and thereby rendering this location really the least economical of those available.

Proceeding from this basis they maintain upon grounds stated that Sligo Bay much more than Galway Bay preserves the above mentioned 'longitudinal and latitudinal' advantages, and that Sligo as the present day has demonstrated its commercial superiority to Galway.

They also urge, by extracts from Government publications relating to Blackrod, Galway and Sligo Bays, and Halifax, Nova Scotia, that no comparatively unfavourable estimate has been formed by naval authorities as to Sligo relatively to the others. And, moreover, that the amount and character of maritime trade possessed by Sligo quite negates the notion that its approach is to be viewed as presenting undue or exceptional dangers to shipping.

The remaining most important point contended for in the letters is that there are important grounds for concluding that Blackrod Bay, in an engineering sense, does not really possess the full superiority, relatively to either Galway or Sligo, taken for granted rather than attempted to be shown by its advocates.

I do not propose to go beyond the limits, supported by my letters (of arguing for the inclusion of Sligo Bay in the Government engineering examinations) by making any definite suggestion as to the particular position or character of the works necessary at Sligo Bay. But without doing this, I may state that I consider there are at least:

1. Four positions affording favourable features for the construction of the requisite shipping accommodation, mainly based upon the same recognised engineering expedient for this purpose.

2. One position in which the physical features partly are and may be entirely such as to make the main element another such needed.

3. One position, partly common to one of the first and to the second of foregoing, in which the works would be more of an equal union of the two methods referred to than is the case with the other positions.

I am, Sir,

Your obedient servant,
WILLIAM LALOR,
Sometime Harbour Engineer, Sligo.

EXTRACT.

34, Rathgar Road, Rathmines, Co. Dublin,
Sept. 13th, 1918.

Sir,

I wish to ask your attention to a few figures which, I am confident, justify the correctness of anticipations formed by me in 1884 and contained in the Appendix No. 28 to the Second Report of Consular Select Committee, of 1883-4, on Harbour Accommodation.

The total Foreign and Colonial Shipping tonnage, of Ireland for			
the year 1913, the latest I have found was	-	-	1,765,492
Same, average of 3 years 1883-5	-	-	869,408
Increase	-	-	896,084
The tonnage of former year being 2.05 times that of the latter			
average.			
The total add tonnage of West of Ireland ports—Shillbreen			
included—for 1913 was	-	-	154,127
Same, average of 3 years 1883-5	-	-	148,673
Increase	-	-	11,064
Tonnage of former year only 1.07 times that of the latter			
average.			

Many of the elements of the explanation of these striking and, as I venture to expect in the opinion of the Sub-Committee, as far as the West Coast Ports are concerned, very depressing figures, will be forthcoming during your visit to them. But much fuller general statistics than the few figures I have given are necessary to fully supply this, and they are not easy, perhaps, not possible of collection by an individual, though they could, I fancy, be got out without any great difficulty by the Transport Section of the Department of Agriculture and Technical Instruction.

I am, Sir,

Your obedient servant,
WILLIAM LALOR.

Sir-Arthur Shirley Bann, M.P., Chairman, Irish Transport Sub-Committee.

APPENDIX No. 25.

STATEMENTS by Mr. James Dunlevy, Chairman of the Donegal County Council, and Mr. J. Steadman, M.A.B., M.Inst.C.E., Surveyor for County Donegal, relative to additional and improved pier accommodation on the Donegal coast, submitted by Mr. J. F. A. Sherris (representing the Solicitor to the Donegal County Council) after his examination on 23rd September, 1918.

(A).—To the SECRETARY of the Irish Sub-Committee to the Parliamentary Committee on Inland Transport.

The County Council of the County of Donegal respectfully beg to place before the Irish Sub-Committee the following important works that they consider should be carried out in the north-west division of the County Donegal:—

1.—About 18 years ago the Government gave a free grant of over £200,000 for the construction of a railway from Letterkenny to Burtonport to develop the fishing industry of Burtonport, which was then, and for many years since, in a most prosperous condition, large catches of herrings, salmon, lobsters and other fish being caught in the district, but the work is incomplete for the want of landing facilities for the fish, and such delays occur in consequence that the fish have often reached the market in a very bad condition. With a view of completing the work, so as to make it the success that was contemplated at the time that the railway was made, the Development Commissioners agreed to give a grant of £8,000, which was supplemented by £1,500, the maximum sum at the disposal of the County Council. This was in the year 1913. The contemplated work for which this money was intended was the dredging of the approaches to the harbour and the providing of proper pier accommodation. Plans and specifications were prepared and advertisements issued asking for tenders from contractors to carry out the work. The tenders were actually received, and although five years have since elapsed nothing has been done to have the money expended. The amounts mentioned are considered very inadequate to carry out the work properly. Owing to the increased cost of material and labour, it would take at least the sum of £10,000 to do the work properly. Even with the pier accommodation at present existing, Burtonport has sent thousands of tons of fresh fish to England since the outbreak of the war, but on account of the poor harbour accommodation and landing facilities it is impossible for large boats to land their fish at Burtonport. If such accommodation was supplied as was intended in 1913, there would be an extremely large increase in the quantity of fish caught and transmitted immediately by rail to the English ports. It is therefore quite plain that a serious loss of fish has been annually taking place in consequence of the want of proper accommodation. We would respectfully urge the Sub-Committee to deal with this matter at the earliest possible moment.

2.—In the district of St. John's Point and Inver Bay, in the parishes of Inver and Killaghtee, convenient to the town of Dunkineely, there is a large fishing population. For want of pier accommodation, the only boats that can be used are what are known as "yawls." Estimating the number of people affected, taking five to a family, the total would amount to at least fifteen hundred people. The fishing procedure going on for years has been as follows:—When the yawls land their fish, including herrings, cod, mackerel, whiting and haddock, they have to be hauled up into fields, facing heavy weather during the night, and at daybreak they are launched and go off fishing for the day. The present landing accommodation consists of two boat slips which are used for the purpose of transferring the fish from the boats to boxes. On account of the small boats that must necessarily be used, owing to the want of pier accommodation, fishing can only be carried on in calm weather, and the catches are not one-twentieth of what they might be if the inhabitants were facilitated in such a way as to enable them to get larger boats. The fishermen for years have agitated for the building of a pier at a place called "The Scaur" in the townland of Ballybodennell. If a pier were built here the fish would be landed within three-quarters of a mile of Dunkineely railway station, whereas at present it has to be carted four miles, which causes great delay and is very expensive on the fishermen. During the harvest time it is very difficult to obtain carts. It is considered that a pier and breakwater could be erected at Ballybodennell for a sum of about £6,000. For many years past, during the summer months, Donegal Bay and Inver Bay have had millions of mackerel remaining therein for months, but as there is no market for fresh mackerel they are useless to the fishermen, if caught. We understand the Congested Districts Board have established in other places on the west coast Caring Stations for mackerel which, when "kippered," find a ready market in England. If such a Kipper Station were erected convenient to the proposed pier, this industry could be very largely developed and thousands of tons of these fish could be sent annually to market. It is therefore to be hoped that the accommodation suggested will be provided for the large number of inhabitants in the districts of St. John's Point and Inver.

3.—At present there is a railway running to the town of Glenties, which is within six miles of a much more important town, namely, Ardara. This town and district have been greatly developed in recent years by the making of what are called "homespun tweeds" in the cottages. Since the war started, these tweeds have been largely manufactured for war purposes. There is also one of the best salmon fisheries in the North of Ireland in this district. At the estuary of the river Owenduff as many as 500 salmon per week have been netted and sent to the English market. There is also considerable herring fishing in Ardara district, but, like at St. John's Point, the only boats that can be used are yawls, and the only accommodation provided is a small landing slip. The inhabitants, for a considerable number of years past, have strongly advocated the making of the six miles of railway necessary to connect with Glenties. At present the salmon and herrings caught and all the homespun tweeds have to be brought by carts to the Glenties railway station, and very often the buyers from the town of Donegal get the tweeds carted to Donegal to their own warehouses, and send them from there to the English market. Since the war broke out these homespun tweeds have been controlled by the War Office. It is considered that a railway would not be difficult to construct, as there would be very little cutting to be done. At most the making of this railway should not exceed £7,000 per mile. It would be a very desirable work to have carried out in the district.

Dated this first day of November, 1918.

(Signed) JAMES DUNLEVY, Chairman.
On behalf of the Donegal County Council.

The Secretary,
Parliamentary Committee Inland Transport (Irish Sub-Committee),
Agricultural Buildings, Upper Merrion Street, Dublin.

SIR.—The following are some of the cases that the Donagall County Council desires to present for your Committee's favourable consideration.

BUNCANNA PIER.

Facilities are urgently required for the development of the fishing industry so as to accelerate transport and it is imperative that the scheme of the development commissioners for extending and improving the accommodation here should be put into execution. Everything was arranged for, and the work was about to begin in 1914, when the declaration of war led to a postponement. Furthermore, as the Lough Swilly Railway Company are obtaining powers in a Bill this year to run trains to Buncanna Harbour, it becomes the more necessary to augment the harbour development. By a steamer service from Buncanna to Rathmullan and Portlaoine the transport problem for the population living in the large area of the county extending northwards from Ramelton to Fard would be favourably solved. There is no railway serving this large area referred to and, in consequence, the transport difficulties are considerable, cost of long distance carting very heavy, while the disadvantages arising through delays operate most unfavourably against traders connected with this area.

RATHMULLAN PIER.

Here also an extension of the pier is required to enable even small steamers to carry on. In consequence the surrounding population is placed at a great disadvantage. The Development Commissioners recognised the necessity for this work and a scheme was practically ready to put into execution in 1914, but, owing to the war, suspended. This work is also badly required.

DOWNING'S PIER.

This, like Buncanna, is a very important fishing centre, but lacks the advantage of proximity to a railway. Greater facilities for transporting fish to Cresslough railway station are required, and some dredging is necessary at the pier to provide better berthing accommodation for trading and fishing vessels.

Yours, &c.,
(Signed) J. STEADMAN, M.A.I., M.Inst.C.E.,
County Surveyor for County Donagall.

APPENDIX No. 25.

Copy of REPORT on the Ballycastle Mineral Field by Robert Ether, M.E., M.I.M.E. (of Glasgow) handed in by Mr. Arthur Hunter, Managing Clerk of the Estate Office, Ballycastle, Co. Antrim, during his examination on 24th September, 1918.

SITUATION.

The mineral field is situated on the North and North-Eastern Coast of the County of Antrim, and extends from the town of Ballycastle to Murlock Bay on the East Coast.

The town of Ballycastle is the only one in the district, and is the terminus of a light railway which connects with the Midland Railway (Northern Counties' Council) main line at Ballymoney. The situation of the "Field" is excellent for development, as its position commands transit facilities by land and sea.

HISTORICAL NOTES.

Tradition has it that the mines worked here are amongst the oldest in the British Isles, and considering the physical features of the district, one can easily believe this. The seams outcropping on the cliffs between Ballycastle and Fair Head, and also at Murlock Bay, lent themselves to easy development. The only serious attempt to work the field was made by Messrs Morry & Cunningham, who worked the Ironstone (Blackband) to supply their blast furnaces in Scotland. The venture seemed to have been successful, as they only stopped work when their lease expired, not being able to get it renewed at the same terms. Since the above firm gave up working very little has been done in the field.

About seven years ago a Company was formed to work the coal, and they sank two shafts at Ballyvoy to the canal coal. This Company was only in existence for three years, when, owing to lack of capital, they went into liquidation. All the work done, except that by the last Company, was confined to Colliery Bay and Murlock Bay districts.

GEOLOGICAL INFORMATION.

The "Field" is in the "Lower Carboniferous Series" and the "Calcareous Sandstone Series," being composed of massive sandstones, shales, thin beds of limestone, ironstones and coal seams. A very good section of the "Lower Carboniferous Series" can be got on the cliffs forming the coast line between Ballycastle and Fair Head, showing the outcrops of the different seams.

There is no doubt that the "Formation" is identical with that in which the off shales are worked in Scotland. I had no difficulty in recognising the eight-foot seam of limestone which outcrops in Colliery Bay as the Berdiboness Limestone, a well-known horizon in the "Scottish Off Shale Field."

As the outcrop of the eight-foot bed of limestone is at sea level, there should be a considerable thickness of productive strata below this horizon. At Falmouth in Scotland there is up to 1,000 feet of productive strata below the Berdiboness Limestone.

The "Field" is much troubled by faults and volcanic intrusions; these disturbances follow a more or less north and south course, splitting up the field into numerous divisions. These volcanic disturbances are associated with off shales wherever found, and do not seem to affect to any great extent the productiveness of the shales.

Practically the whole of the field is capped with sheet basalt, and I noted several zones of sheet basalt through the stratified rocks; these are very much in evidence in the Murlock Bay district. How these sheets or sills of basalt affect the shales and coal seams is always uncertain; in some cases they burn up and drive off any volatile matter the seams contain; in others they have no appreciable effect on the seams.

ESTATE OF BALLYREACH UPPER AND LOWER, COLLIERY BAY DISTRICT.

SHALES.

In this district the seams outcrop on the cliffs forming the coast line.

The outcrops are first met with about half-a-mile to the east of the town of Ballycastle, continuing for a distance of four miles to Fair Head. The cliffs gradually rise in height from 150 feet near Ballycastle to 436 feet at Fair Head. The seams of shale outcropping on the cliffs are eight in number, varying in thickness from three feet to seventeen feet, making a total thickness of ninety feet of shale, of which about twenty-five feet is true oil shale. Numerous mines have been driven into the face of the cliffs to work the coal and ironstone. Some of the mines could be put into repair with very little expense to work the seams. Owing to the disturbance caused by the faults and volcanic intrusions, it is practically impossible to arrive at the true dip of the seams, but as near as I could estimate, the dip is between 5° and 10° from the horizontal dipping in a south-east by south direction.

I estimate the "Field" to contain the following oil shale reserves.—Allowing 35% for loss of faults, intrusions and loss in working, and taking only 5,400 acres of the 9,280 acres, as the remainder would require to be proved by boreholes.

Shale reserves 189,000,000 tons.

COLLIERY BAY COAL SEAM.

Three seams of coal have been worked here, viz.:—The Hawk's Nest, the Main Coal, and the Best Bed. The seams are free burning bituminous coals. The Canal Coal overlies these seams, but has been very little worked.

CHANNEL COAL SEAM.

This is the top workable Seam, and has been proved in several places on the coast line. At Ballyvoey this seam was proved at a depth of 43 fathoms, 203 feet from the surface, by two shafts sunk about seven years ago by the Belfast Iron and Coal Company. The seam is of a good workable thickness, varying between two feet and three and a half feet, and gives the following analysis by Thibcock and Thomson, Analytical Chemists, Glasgow.

CHANNEL COAL.

Gas, tar, &c.	-	-	-	-	-	44.17
Sulphur	-	-	-	-	-	.93
Fixed Carbon	-	-	-	-	-	51.00
Ash	-	-	-	-	-	3.90
						100.00

I consider this a good gas coal which would command a ready market. By slow distillation this Channel Coal would yield a good quantity of oil.

ESTIMATED CHANNEL COAL RESERVE.

Thickness of seam	-	-	-	-	Average 2 feet 6 inches
Area	-	-	-	-	5,600 acres.
Total amount	-	-	-	-	18,480,000 tons.
Less 25% for loss	-	-	-	-	4,620,000 "
					13,860,000 "

13,860 tons available.

HAWK'S NEST COAL SEAM.

This is the second seam of workable coal next from the top; it has proved to be four feet thick, but in places it has run down to two feet thick. A large area of this coal has been worked in the Colliery Bay district at least 500 acres.

ESTIMATED HAWK'S NEST RESERVE:—

Thickness of seams	-	-	-	-	Average 3 feet.
Area 5,600 acres (less 500 worked)	-	-	-	-	5,100 acres.
Total amount	-	-	-	-	20,195,000 tons.
Less 25% for loss	-	-	-	-	5,045,000 "
					15,147,000 "

15,147,000 tons available.

MAIN COAL SEAM.

This is the third seam of workable coal next from the top. This seam has been the most extensively worked of any: quite 1,000 acres of this seam has been worked. The seam varies in thickness between four feet and seven feet: at the Griffin Mine, where I saw it exposed, it was four feet thick. I consider this seam to be a good household coal, and it should command a good market.

ESTIMATED MAIN COAL RESERVE.

Thickness of seam	-	-	-	-	4 feet.
Area 5,600 acres (less 1,000 acres worked)	-	-	-	-	4,600 acres.
Total amount	-	-	-	-	26,495,000 tons.
Less 25% for loss	-	-	-	-	6,624,000 "
					19,872,000 "

19,872,000 tons available

BEST RED COAL SEAM.

This is the fourth seam of workable coal met with. Very little of this seam has been worked, at the most 300 acres. At Rath ledge this seam was worked, and varied in thickness between six feet and nine feet. As it is not possible to see this seam it is impossible to judge its quality, but as it occupies the same position as the Houston coal in Scotland, it will probably be of inferior quality.

ESTIMATED BEST RED RESERVES.—

Thickness of seam	6 feet
Area 5,600 acres (less 300 acres worked)	5,300 acres
Total amount	45,792,000 tons
Less 25 per cent. for loss	11,448,000 "
	34,344,000 tons

34,344,000 tons available.

COLLIERY BAY.

IRONSTONES.

Numerous seams of ironstone outcrop in Colliery Bay. These seams vary in thickness from a few inches to fifteen inches thick. The Blackband ironstone being fifteen inches thick. The ironstone would pay to work in conjunction with the coal or shale seams. The ironstone have been extensively worked. The ore is of a very pure quality, giving 81 per cent. peroxide of iron. The ironstone would prove a valuable asset.

Analysis of Samples of Shales taken from Outcrops at COLLIERY BAY.

Analysis by Tatlock and Thomson, Analytical Chemists, Glasgow:—

The samples represent the full thickness of the shales and from the results got there is reason to believe there are good seams of oil bearing shales in the mountains.

Sample A, Main Coal Shale, 15 feet thick—7 gallons Crude Oil per ton.

Sample B (Lower) 50 feet below Main Coal, 3 feet thick—4 gallons per ton Crude Oil 32.28 Ammonium Sulphate.

Sample B (Top) Main Coal Shale 15 feet thick—5 gallons Crude Oil per ton.

Sample C. 80 feet over Main Coal 10 feet thick—6 gallons Crude Oil per ton, 32.68 Ammonium Sulphate.

Sample G (Bottom) over Hawk's Nest Coal 8 feet thick—5 gallons Crude Oil per ton, 38.36 Ammonium Sulphate.

Sample H under Basalt cap 17 feet thick—5 gallons Crude Oil per ton, 35.64 Ammonium Sulphate.

Eleven samples were tested by Tatlock & Thomson: three of the samples gave only a trace of oil, two samples gave only two gallons, and the remainder averaged from four to seven gallons of Crude Oil per ton.

Messrs. Tatlock & Thomson state that "the figures indicate a possibility of richer samples being obtained if those analysed by us are merely from outcrops."

RALLYVOY DISTRICT.

SHALES.

The basalt cap is entirely absent here, and the strata are covered with a considerable thickness of drift. The two shafts sunk here by the Belfast Iron and Coal Company were put down to a depth of 42 fathoms, 252 feet. At a depth of 120 feet a seam of shale, fifteen feet in thickness was cut through, and directly over the coal seam a seam of shale 60 feet in thickness was passed through. Owing to the basalt being absent here I consider the shales would give better results than in the Colliery Bay district. There is good reason to believe that oil shale in paying quantities will be got here.

COAL SEAMS.

The coal worked in the pits here was a Channel coal closely resembling the "Torbanhill Mineral," which was worked in Scotland for oil and gas manufacture. This Channel coal has been proved on the coast at Colliery Bay; therefore, there is every reason to believe that the other seams worked on the shore will be got here by sinking. I understand a borehole was put down here from the bottom of the shaft and cut through a seam six feet thick, but as there are no records left of this borehole, this information can't be relied upon. (See my notes on Channel coal in the Colliery Bay District for further information.)

SILICA.

A very good seam of Silica occurs here under the coal seam, giving an average thickness of seven feet. Silica commands a ready market; therefore, there would be practically no refuse from the working as this seam could be worked in conjunction with the coal. Most of the Silica used in Britain is imported from Norway; therefore it should be possible to compete successfully with it as transit costs will be less.

The following analysis was made by Messrs. Tatlock and Thompson, Analytical Chemists, Glasgow:—

Silica	93.15
Alumina	3.37
Oxide Iron	.39
Thaustic Acid	.48
Lime	2.03
Magnesia	.18
Potash	.15
Soda	.05

100.00

MURLOCK BAY ESTATE

SHALES.

I located two seams of shale here out-cropping on the face of the cliff, but owing to the intrusive sheets of basalt resting practically on the seams, any volatile matter they may have contained has been driven off coal seams.

Six seams of coal have been proved here, which proves the continuation of the beds from Colliery Bay through Ballyvoy to Murlock Bay, as the beds are undoubtedly the same as those which out-crop in Colliery Bay.

The coal seams average two feet six inches in thickness. Two of the seams are anthracites due no doubt to the proximity of the basalt; the four remaining seams are free burning bituminous coals.

Although the mines were worked here for some time very little coal has been taken out.

There is a big reserve of coal in this estate, but as the Ballyreagh Estate commands the approach to it, it will only be necessary to acquire it when wanted for development.

BALLYREAGH UPPER AND LOWER

NOTES ON LEASE.

The lease should include the following minerals: coal, ironstone, silica, limestone, bauxite, clay, fire-clay, shales, oil, shales gannister or any mineral met with in the ordinary course of mining operations.

The lease should be for a period of at least 60 years with a three years' surrender clause. The rent (£230 per annum) seems to be rather high, but the royalty (3d. per ton) is very reasonable. If possible, a free way leave should be arranged from adjoining estates. Should this not be allowed, I consider 1d. per ton a reasonable rate for way-leave.

LABOUR FACILITIES.

It should not be difficult to induce labour into the district. Wages of unskilled labourers are low, and general labourers plentiful. The Scotch coal fields being near, miners can be easily got. The lack of skilled miners has seriously handicapped the other coal fields in Ireland, but owing to the position of the Ballyreagh coal fields, I consider miners can be easily induced to the district.

TRANSPORT FACILITIES.

The town of Ballyreagh is connected to the standard Irish gauge railway by a narrow-gauge line 17 miles long at Ballymoney. The line is in a bad state, and I am of opinion it would not stand heavy traffic. Should the traffic warrant it the Railway Company would no doubt reconstruct the line to the standard Irish gauge.

The best outlet for the minerals is by sea. A good harbour could be constructed in the Colliery Bay and the whole of the output shipped from there. As the land transit and the harbourage would be in the Mining Company's hands transit costs could be cut down to a minimum. Railway labour troubles, etc., would not have any effect on the Mining Company's business.

The situation of the "field" is ideal for a coaling station, being on one of the principal trade routes.

GENERAL REMARKS.

In the Colliery Bay district a number of the mines could be put into repair at very little cost, and a good output could be drawn from them.

Ballyvoy is the best position in the "field" to develop from. The two shafts sunk there could be utilized. By sinking these shafts to the lower seams the work could be centralized, the area of the "field" proved, and working costs reduced to a minimum.

From the Ballyvoy shafts I consider an output of 800 tons per day could be raised. Taking 280 working days in the year, this gives an annual output of 224,000 tons.

Valuing this output at the low average selling price of 10/- per ton, this gives an annual turnover of £112,000.

I consider the expenditure of £50,000 would be ample to sink the shafts to the lower seams and thoroughly equip the colliery.

Working costs, including Insurance, Rates, Taxes, Scales, etc., would range from 7/- to 9/- per ton.

I estimate the "field" to contain the following coal reserves, allowing 25 per cent. for loss through faults, volcanic intrusions and loss in working—83,223,000 tons of workable coal.

Cost of production of shale should not exceed from 3/6 to 4/6 per ton.

Taking everything into consideration, the proposition, is a very good one.

It would be advisable to downsize the Ballyvoy shafts before anything further is done. I consider the expenditure of £1,000 would be sufficient for this work.

There is a good site at Ballyvoy for the erection of plant.

I have estimated the "make" of the water in the Ballyvoy shafts to be about 200 gallons per minute.

ROBERT BLAND, M.E., M.I.M.E.

H. WALKER, Cannon Rock, Howth, Co. Dublin.

APPENDIX No. 27.

COPY of Letter from Mr. J. Harrison, Secretary to the Monaghan Gas Company, relative to the Ulster Canal
Monaghan, 12th November, 1918.

To Mr. P. MacNulty,
Dublin.

DEAR SIR,
Yours received some time ago re Canal from Belfast to Monaghan. I have had this before my Directors and they have instructed me to say:—

For some time no service has been running. They suggest that the Canal should be properly cleaned out some time during the summer. The supply of water is not what it should be—this could be remedied by attention to the reservoir. They suggest that a prompt and punctual delivery should be started. Motor boats should be put into the service. Sometimes it is impossible to get wagons from the Railway Company. They are convinced if this service is put into good working order it will be a great boon to the surrounding district.

Yours faithfully,

J. HARRISON, Secretary.

APPENDIX No. 28.

COMPARATIVE List of Coal Rates and Statement of Coal Tonnage carried by Rail handed in by Mr. Frederick Ferris, Coal Merchant, Newry, during his Examination on 25th Sept., 1918.

(a)—LIST OF RATES per ton by Merchandise Trains for Coal in 6 Ton lots at Owner's risk between Newry (Albert Basin), Dundalk (Barack St.), Belfast Quays, and the underrooted stations.

Stations to	From			Stations to	From		
	Newry.	Dundalk.	Belfast.		Newry.	Dundalk.	Belfast.
Armagh	2 0	4 8	4 6	Beragh	5 10	8 11	7 2
Ardee	4 7	2 10	8 1	Ballybay	5 1	5 8	8 4
Aughnacloy	6 9	7 4	8 1	Ballyham	6 4	5 7	7 7
Augher	7 4	8 7	9 4	Ballygowley	6 8	7 11	6 8
Arva Road	7 3	6 6	8 11	Bandon	9 6	8 7	10 8
Annaghmore	3 4	4 11	4 6	Bawnboy Road	8 0	7 4	9 8
Banbridge	2 10	4 5	4 2	Bellinamallard	7 5	6 6	8 5
Ballymoney	3 9	5 1	4 10	Belcoo	8 0	7 3	9 8
Ballymore	8 5	7 5	10 2	Bellusk	8 0	8 2	10 2
Ballymore Hill	7 9	7 1	9 5	Ballyvaughan	9 4	8 2	10 4
Belfast	6 4	5 10	7 7	Bellvue	4 2	5 4	4 10
Brooklodge	5 11	7 3	—	Cooteshill	5 9	4 3	8 11
Clogh	8 10	7 5	10 9	Clogher	7 5	8 9	9 5
Clogh	3 7	4 10	7 4	Monaghan Road	5 5	4 1	8 1
Colville	4 0	2 5	7 10	Magnusbridge	6 8	5 8	8 4
Cavan	6 4	5 8	7 7	Manorhamilton	9 10	8 1	10 2
Castleblaney	4 6	3 0	6 11	Mill	8 5	6 8	10 8
Castleblaney	4 8	6 1	5 6	Newbliss	5 9	4 3	7 10
Castlemore	4 3	2 8	8 0	Newcastlewest	7 0	7 11	8 2
Cookstown	5 1	6 8	3 8	Newcastle	6 1	4 11	7 10
Crossadeen	7 1	6 5	8 9	Oldcastle	6 5	7 4	7 7
Crossadeen	8 6	6 7	6 11	Portadown	7 11	6 1	10 8
Dungannon	4 4	5 7	5 6	Portlough	2 10	4 6	4 2
Dunaghamore	4 6	5 9	5 8	Portlough	1 10	2 6	6 4
Dromore	3 8	4 11	3 8	Portlough	5 1	6 3	6 5
Dromore Road	7 3	7 4	8 4	Pettigo	8 6	8 0	9 8
Dundalk	3 4	—	7 3	Roskill	3 8	4 10	5 0
Drogheda	4 9	3 1	8 5	Roskill	6 4	5 7	7 7
Dunmurry	6 8	5 8	8 2	Roskill	8 5	4 1	8 9
Edgewoodstown	8 1	8 1	9 4	Sandboro	5 2	5 5	7 1
Ferryglade	8 2	8 2	10 3	Stewartstown	4 8	6 3	5 6
Ferryglade	7 6	6 11	8 3	Soury	2 2	3 10	5 2
Glenfurness	8 2	7 7	9 11	Tandragee	2 6	4 0	4 11
Glenfurness	4 4	5 6	5 7	Thew and Moy	4 1	5 3	5 3
Hamiltonstown	2 10	4 3	5 8	Tynan	3 9	5 2	4 11
Inverness	7 3	7 1	8 11	Trillick	7 5	7 2	8 8
Keady	3 11	3 11	5 4	Warrenpoint	1 2	4 0	6 5
Kesh	3 6	4 11	4 10	Longford	8 4	7 10	9 9
Killybegs	7 6	6 11	9 1	Ballywilliam	7 3	7 1	9 5
Kesh	8 1	7 3	9 5	Mullingar	8 2	7 7	9 7
Killybegs	3 9	4 11	4 11	Atkins	9 3	8 10	10 7
Lisnaskea	6 6	5 9	8 2	Roscomon	9 11	9 6	11 6
Lisbellaw	6 11	5 8	8 6	Ballynascree	9 10	9 4	11 3
Larne	2 8	4 3	4 8	Sligo	9 11	9 4	9 9
Larne	—	—	4 7	Boyle	9 6	9 1	11 1
Larne	5 5	4 10	3 10	Curragh-on-Shannon	9 2	8 10	10 6
Loughilly	1 11	3 8	6 2	Nayon	5 6	4 9	9 7
Lisburn	4 8	5 9	2 8	Kells	6 1	4 7	10 1
Market Hill	2 5	3 11	6 0	Convey	8 8	9 7	10 0
Monaghan	4 4	5 6	5 7				

The rates quoted from Belfast Quay include 2d. per ton for tolls payable to the Belfast Harbour Commissioners.

The rate quoted from Dundalk does not include 2d. per ton payable to the Dundalk and Greenore Railway Company.

(b).--COAL CARRIED FROM PORTS TO G.N.R. (L) STATIONS AND STATIONS BEYOND.

	Year 1912.	Year 1913.	Year 1914.
	Tons.	Tons.	Tons.
Dundalk to Local Stations - - - -	95,074	58,399	50,431
" " Other Companies' Stations - -	1,327	4,219	5,691
Newry to Local Stations - - - -	16,485	66,007	75,936
" " Other Companies' Stations - -	4,800	10,061	7,312
Warrenpoint to Local Stations - -	28,335	30,425	36,800
" " Other Companies' Stations - -	1,090	4,088	3,603
Belfast to Local Stations - - - -	163,145	118,140	117,379
" " Other Companies' Stations - -	2,618	4,311	4,820

APPENDIX No. 29.

REPORTS dated 22nd May, 1895, 1st May, 1896, and 18th October, 1906, to the Dundalk Harbour Commissioners on their Harbour Works, by Sir John Parer Grigby, M.Inst.C.E. and M.Inst.C.E.I.

(a) Greenane, Temple Road, Rathmines, Dublin,
May 29th, 1895.

To the Chairmen and Commissioners of Dundalk Harbour.
GENTLEMEN,

In compliance with the request that I should inspect certain works in your Outer Harbour, conveyed to me by your Secretary, I visited Dundalk on the 19th inst. On my arrival I was courteously met by your Secretary and Engineer. Having proceeded to the Harbour Office, Mr. Cahill showed me the various plans which have been prepared from time to time for the improvement of the harbour, and explained to me the present state of the works which have been carried out.

Subsequently, in company with Mr. Patterson, I inspected the wharfs and the Inner Harbour up to Dundalk Bridge. Later in the afternoon, in company with the Chairman and several of the Commissioners, I went down the Outer Harbour by boat to the steam-dredger, which was engaged in dredging the Pot-lid Bank. Your Secretary, Engineer, and Harbour Master accompanied us, and from each of these gentlemen I received valuable information. As it was low water I was able to obtain a very fair idea of the condition of the navigable channel of the Outer Harbour, and, with Mr. Cahill's assistance, a clear insight into the aims of the various works already undertaken, as well as his views as to the several works in contemplation for the further improvement of the port.

Having remained on your dredger some time, I proceeded further down the harbour with the Chairman, and landed on the East Bank, which extends into the channel to the south of No. 4 Beacon. This bank is caused by sand driven in from the North Bull over the east training wall, which is here completely buried under the sand for a length of about 1,500 feet. The most southern jetty on this side of the river is also buried. From this point we obtained a good view of the extensive and banks which have accumulated on the east side of the channel in the neighbourhood of the lighthouse. I have been informed that these banks have greatly increased of recent years. Mr. Cahill is of opinion that when the Pot-lid Bank is dredged through, the training wall on the opposite side of the channel should be completed, and that this will result in the washing away of the East Bank below No. 4 Beacon, to which reference has been made. For the removal of the sand banks on the east side of the channel near the lighthouse he considers it will be necessary to extend the west training wall from No. 2 Beacon seawards, as originally designed.

As I was desirous of observing the progress of the first half of the flood tide across the North and South Bulls, and up the channel, arrangements were made to bring me down to the lighthouse before low water on Saturday morning, the 11th inst. Accordingly, in company with your Harbour Master, I reached the lighthouse by 5.30 a.m., and we watched the flow till 9 a.m. I thereby gained very valuable information as regards the direction of the flow of the tide, the undulations and contour of the North and South Bulls, and the various tidal channels through these banks. The enormous extent of the sand banks which have encroached on the navigable channel specially impressed me.

The general design of the training walls in the Outer Harbour was laid out by the late Mr. John Neville. Mr. Cahill, your resident engineer, has loyally adhered to and conscientiously carried out Mr. Neville's plans as far as the funds at his disposal permitted.

In discussing these works it is important to bear in mind the object for which they were designed. Up to the year 1844 the channel between Soldier's Point and the bar was constantly changing in direction, width, and depth. As an example of this Captain Hookyn mentions in his report that "when the present lighthouse was built in 1856 the channel was to the eastward of it; at the period of the Admiralty survey in 1855 it was to the westward of the lighthouse, and is now (1863) again on the east side of it." Such, then, was the state of the channel at the time of Mr. Neville's report of March 8th, 1844. From this report it is quite clear that his aim was to regulate the navigable channel from the lighthouse to the Point, and fix the channel across the bar by means of guide walls and the assistance of steam dredging.

Mr. Neville was not very sanguine that the works would result in any very great increase of depth of water, for, he says, "the harbour must always remain a tidal one"; but in eradicating his designs it is only

just to bear in mind that the shipping requirements of his day were very different to present day requirements, and also that his proposed works have never been completed.

It appears to me that the great question to be decided is, Should the training walls be completed, as designed by Mr. Neville, and, if they are to be completed, will they provide the Harbour of Dundalk with a sufficiently safe and deep approach for the present and future maritime trade of such an important town and district? I have very carefully read the various reports and examined the plans placed at my disposal by your Engineer and Secretary. I have also read the evidence given before the Tidal Harbours Commission and the returns sent into the Board of Trade in 1883, and compared the various Admiralty charts of Dundalk Bay, published since Admiral McKenna's survey of 1776. A consideration of all this information, combined with the knowledge obtained by personal inspection during my recent visit, leads me to the conclusion that the scheme, as originally designed by Mr. Neville, will not meet the need of the Port of Dundalk unless the Commissioners are prepared to increase their dredging plant, and expend much larger sums annually on dredging than they have done hitherto.

It is but fair that I should state that at the time these works were designed but little was known of this difficult branch of engineering, and it was not till some 18 years later that the laws which govern the flow of water in such channels as Mr. Neville proposed to form were scientifically investigated, and it was not till more than 20 years after Mr. Neville's report that the effect of training walls in tidal estuaries and bays was made the object of practical research, and placed outside the domain of mere conjecture.

The early Bills for the construction of the Manchester Ship Canal were thrown out by Parliament in consequence of the proposal to run training walls through the tidal estuary of the Mersey. It was proved that such training walls would lead to accretion outside the walls, and that this accumulation would reduce the tidal volume of the estuary and therefore prove injurious to the lower Mersey and its channel across the Liverpool Bar.

A comparison of the Dundalk channel, as shown on Mr. Neville's plan of 1864, with the state of affairs at the present day proves that the reconstruction of the training walls has been followed by great accumulations of sand outside the walls, especially outside the east wall. It is to this accumulation that I would specially wish to draw the attention of the Commissioners and particularly to the great bank to the south of No. 4 Beacon, where the sand from the North Bull has passed over the wall into the channel, burying the wall for a considerable length.

The plan of 1864 shows the low-water channel at this point extending some 600 feet east of the line of the present east wall. This will give some faint idea of the magnitude of the accumulation. The buried training wall no longer forms a barrier to the inflow of sand, and every on-shore gale brings immense quantities of fresh sand into the channel, which is here contracted at low water to half its nominal width. In the contracted channel the current is accelerated. This current cuts away the edge of the bank and transfers the sand to the great bank on the east side of the channel near the lighthouse. This bank is gradually widening and shifting the navigable channel to the westward, away from the lighthouse.

The removal of the Pot-Id Bank and the construction of a training wall between No. 4 and No. 7 Beacons would, no doubt, as Mr. Cahill expects, widen the channel opposite the East Bank, but not to the extent to which he expects, for the supply of fresh sand from the bay would remain unrestricted, while the sand removed would only be deposited lower down the channel.

For this reason I believe it is absolutely necessary to take measures to stop the inroads of sand into the harbour by raising the buried training wall above the strand level, and keeping it above it hereafter. By this means alone will it be possible to maintain the channel at any reasonable annual expenditure, to say nothing of improving it.

Having thus sketched briefly the present condition of the harbour, I beg to make the following recommendations:—

First—That the dredging away of the Pot-Id Bank be proceeded with as rapidly as possible, and that as soon as the present cut of 300 feet in width is finished, an additional width of 100 or 150 feet be dredged away with the object of straightening the channel and facilitating the in-flowing tide.

Second—That the stone, which I am informed the Commissioners have contracted for, be used to raise the east training wall where it is at present buried south of the No. 4 Beacon, instead of in an extension of the east wall between No. 4 Beacon and No. 7 Beacon.

Third—That no further extension of the training walls be carried out until a complete survey of the harbour and port be made.

I would urge the Commissioners to have this survey made as soon as possible, for on it alone can a future policy of port improvement be safely founded. Such a survey must be a detailed chart of the port and harbour on a large scale, giving the soundings throughout in reference to a definite datum. The levels of the North and South Bull strands should also be fully ascertained and marked on the chart. Tidal observations of the rise and fall of the tide in different parts of the port during a prolonged period should be made, and borings should be obtained in the channel and on the bar.

The direction of the currents in the bay both on the flood and ebb tides should also be ascertained. Such a survey is, of course, a work of great labour, and can only be carried out by a skilled surveyor. Once completed it will form an invaluable guide to the Commissioners and their scientific advisers in deciding on the best lines for further improvements of the port, and will form a standard with which future surveys can be compared.

I am inclined to take a very hopeful view of the possibilities of improving the Port of Dundalk to such an extent that it may be open at all states of tide to vessels engaged in the cross-channel and coasting trade. It possesses an admirably sheltered Inner Harbour, and is very favourably circumstanced as regards its range of tide, one of the most powerful factors we possess for port improvement.

I cannot close without again expressing my obligation to your Engineer, Secretary, and Harbour Master for the assistance they so willingly gave me when in Dundalk. I also beg to thank the members of your Board with whom I came in contact for their kindly attention to me.

I remain, Gentlemen, Your obedient servant,

JOHN PURSER GRIFFITH, MINSTER AND MINSTER

REPORT.

(b) Greenane, Temple Road, Rathmines, Dublin,

May 1st, 1894.

To the Commissioners of Dundalk Harbour:

GENTLEMEN,

On the 25th January, 1896, your Secretary, Mr. Farrell, wrote, informing me that Mr. Crosthwaite had completed his survey, and had laid it before the Commissioners, together with a report embodying the results of his observations, and that the Commissioners had instructed Mr. Crosthwaite to proceed to Dublin and lay the whole matter before me, with the view of obtaining from me a report on the improvements which I should recommend to be carried out in your harbour.

In accordance with this resolution, Mr. Crosthwaite handed me his survey and a copy of his report. I have also had several interviews with him, and received from him most valuable information.

In my preliminary report of the 29th May, 1895, I made three recommendations:—

First—That the dredging of the Pot-hill Bank should be carried on as rapidly as possible with the object of widening and straightening the channel at this point and facilitating the following tide.

Second—That the buried training wall south of No. 4 Beacon should be immediately raised above the strand level, to check the encroachment of sand from the North Bull into the channel.

Third—That a survey of the Harbour and Port should be made before any further extensions of the training walls were carried out.

I wish, in the first instance, to express my satisfaction at the manner in which the Commissioners have carried out these recommendations.

After my visit to Dundalk last May, the dredging of the Pot-hill Bank was continued, and the channel considerably improved, before dredging operations were suspended for the season. The deepening and widening of the channel at this point should, if possible, be continued this summer.

The buried training wall south of No. 4 Beacon has been raised, and the encroachment of the North Bull sands into the channel has thereby been checked.

A survey of the harbour, extending from the Quays to the Bar, has been completed for the Commissioners by Mr. Crosthwaite. This survey must prove invaluable as a standard with which to compare future surveys of the port, and as a guide in determining a future policy of Port improvement.

Before discussing the present condition of the Port, or expressing any opinion as to what further steps I consider essential for its improvement, it will, I think, be desirable for me to give a brief historical sketch of the Harbour of Dundalk, as far as I have been able to trace it, from various documents at my disposal.

MACKENZIE'S CHART, 1776.

The earliest chart of the bay of Dundalk, which I have seen is, Mackenzie's Admiralty chart, dated 1776. It is interesting as being one of the earliest records of an official character, but for engineering purposes possesses no value beyond the evidence it affords of the movement of the navigable channel to the westward. On this chart the channel of the Outer Harbour is marked by poles or perches. (PLAN I.)

MUNICIPAL CORPORATIONS (IRELAND) COMMISSION, 1833.

From the evidence given before the Commissioners on Municipal Corporations (Ireland), in October, 1833, I find that up to that date there was no properly constituted harbour authority of Dundalk. The Earl of Roden, however, assumed the right of appointing a harbour master. This official levied certain rates on shipping, and by the grant of his office was bound to maintain buoys and perches out of these dues. Evidence was however given that the harbour was almost utterly neglected.

The Commissioners reported that the port was gradually rising in importance, and that a Board of Harbour Commissioners appointed under proper regulations seemed much wanted.

DUNDALK HARBOUR ACT, 1840.

In the year 1840, an Act for regulating, preserving, improving, and maintaining the river, port, and harbour of Dundalk was passed. Under its twenty-seven Commissioners were appointed to carry out the objects of the Act. Certain rates and duties were authorised, and power was given to borrow £120,000 to carry out the objects of the Act.

The principal works contemplated were the construction of embankments and the reclamation of strand areas in what is now called the Inner Harbour.

Under this Act, £20,150 was borrowed between 1840 and 1855, and the embankment from the quays at Dundalk to Soldier's Point on the south side of the river was constructed. The river channel was diverted, straightened and deepened between these points; buoys were placed in the channel, and mooring posts erected.

THE TIDAL HARBOURS COMMISSION, 1845.

In October, 1845, the Tidal Harbours Commission held an enquiry at Dundalk. The evidence is interesting as giving some idea of the condition of the harbour at that date.

Mr. Byrnes, Clerk of the Harbour Commissioners, stated that the average income was £1,800 per annum. In the year 1844, 716 vessels, representing 80,000 tons, arrived. The debt amounted to £16,050. The Parliamentary survey had cost £650. I regret that I have not been able to find any trace of this survey. It would have been useful to me in clearing up some doubts as to the exact nature of the works contemplated by the Act of 1840.

Mr. Richard Needham, the resident engineer, detailed the improvements already made. He said that parts of the channel had been deepened from 5 to 8 feet. The embankment had cut off 40 acres of strand

area. The depth of water over this averaged 6 feet at high water of spring tides. The rise of tide was 16 feet at the bar and only 7 feet at the bridge.

The channel was to be 150 feet wide at the quays, and 300 feet wide at the point. Steam dredging cost 8d. per cubic yard. He had lifted stuff 4 feet on the bar. The foundation was hard. Sir John McNeill, under whose direction the works were carried out, corroborated Mr. Needham's evidence, and explained the great capability of improvement of the port of Dundalk. The bar referred to by Mr. Needham was probably the Ford Bank, or the Minor bar between Shell Island and Soldier's Point.

THE DUNDALK HARBOUR AND PORT ACT, 1855.

In the year 1855 a Bill was introduced into Parliament repealing the Act of 1840. Among the principal objects of this Bill were the following:—

1. To extend the limits of the port and harbour seaward to a line drawn from the extremity of Donany Point on the south, to Cooley Point on the north, so as to bring the whole of Dundalk Bay within the jurisdiction of the Commissioners.

2. To authorise the Commissioners to deepen, cleanse, secure, dredge, regulate, improve, manage, and maintain the port and harbour within these limits.

3. Among the works contemplated by the Bill were the encumbrance and embanking of land within the entrance to the Inner Harbour, at Soldier's Point, and the straightening of the channel thence to Dundalk.

4. It was also proposed to run out to sea from the mouth of the Inner Harbour two guide walls of embankments, three miles in length, across the foreshore, to fix the channel, and to reclaim the lands occupying the angular spaces formed by the said embankments and the adjacent coast lines. (PLAN II.) Reclamation of strand area was the principal feature of this Bill. The Admiralty in their report to Parliament state that it was in contemplation to reclaim 4,618 acres, of which 710 were inside Soldier's Point.

The Admiralty estimated that between 8 and 9 millions of cubic yards of water passed through the entrance at Soldier's Point four times daily, and that if the reclamation contemplated within the Inner Harbour was permitted, the volume of water would be reduced by nearly 7 millions of cubic yards. Their lordships considered that such an encroachment on the water of the Inner Harbour might be fatal to it as a port, and although assent would be given to the embankment on the south side of the channel then in progress, no sanction could be given by their lordships to any further diminution of the tidal space within Soldier's Point; on the other hand their lordships saw no objection to the enclosure and reclamation of the two angular spaces of foreshore outside Soldier's Point.

Fortunately for the Port of Dundalk, the Crown, by section 63 of the Act, obtain the ownership of any land reclaimed from the sea outside the Inner Harbour. This section practically precluded the Harbour Commissioners from wasting their money in attempts to reclaim the North and South Bull strands. The Act also altered the constitution of the Harbour Commission and reduced the number of Commissioners. Borrowing powers to the amount of £49,000 were given in addition to any sums borrowed under the Act of 1840, thus practically giving the Commissioners power to borrow £70,000 on the credit of the income of the port.

It is under this Act that the Commissioners at present exercise their powers for the maintenance and improvement of the Harbour of Dundalk.

THE ADMIRALTY SURVEY OF 1858.

The first survey of the Port and Harbour of Dundalk which is of any real value from an engineering point of view is the Admiralty survey made in 1858 by Captain Hoskyn, R.N. It was evidently undertaken by the Admiralty in view of the works proposed for the improvement of Dundalk Harbour under the powers of the Act of 1855. Although the low water datum to which the soundings are referred is not rigidly defined, yet the chart is of considerable value in determining the changes which have since taken place, by comparison with Mr. Crosthwaite's survey. The levels of the strands in the Inner and Outer Harbours are very fully given, and prove that great accumulations of sand have taken place on the North Bull and considerable silting up in the Inner Harbour.

At the time the survey was made the only work which had been constructed was the embankment on the south side of the Inner Harbour between the quays and Soldier's Point. The guide wall on the north side of the channel of the Inner Harbour had not been begun, and the channel of the Outer Harbour across the strands was still untrammelled. The bar is shown nearer the lighthouse than in Mr. Crosthwaite's survey, with a depth of from 2 to 3 feet on it. The ruling depth of the channel up to Soldier's Point is from 2 to 3 feet at low water, while in the bar hole westward of the lighthouse there is 7 to 8 feet and near Shell Island, a hole with 10 feet at low water.

SIR JOHN RENNIE'S REPORT, 24TH JANUARY, 1862.

In October, 1861, the Harbour Commissioners asked the late Sir John Rennie "to report upon a plan for the improvement of Dundalk Harbour submitted by Mr. Telford MacNeill, and also to give a general opinion upon the improvement of the said harbour."

Mr. Telford MacNeill's scheme principally consisted of the construction of certain guide walls or embankments on the north side of the Inner Harbour with the object of compelling the tidal water which flowed over these strands and the Ballynascanlan estuary to pass through the Dundalk channel both on the flood and ebb tides.

Sir John Rennie reported in January, 1862, that he considered the principle of Mr. MacNeill's plan good, and that it would be beneficial to the Harbour of Dundalk if properly carried into effect.

CAPTAIN HOSKYN'S REPORT, 1863.

The Admiralty, whose consent was necessary for the works, referred these proposals to their Inspector, Captain Hoskyn, who reported adversely, on the ground that silting would take place behind the proposed embankments, and that the tidal capacity of the Inner Harbour would be thereby reduced.

Captain Hoskyn concludes his report to the Admiralty by suggesting that too much attention was being paid to the improvement of the Inner Harbour, and urging the removal of all impediments to the free ebb and flow of the tides. He also recommended the construction of training walls in the Outer Harbour to guide the tidal stream into the channel and, if possible, to fix the channel over the bar.

The Admiralty having vetoed Mr. MacNeill's proposals, nothing further seems to have been done until January, 1864, when the late Mr. John Neville was asked "to report on the present state of the bar with the view of making immediate improvements upon same."

MR. NEVILLE'S REPORT OF 1864.

In Mr. Neville's report of the 8th March, 1864, he submitted a scheme of port improvement consisting of the construction of training walls on both sides of the channel of the Outer Harbour and the removal of certain shoals by dredging. These works are shown on his plan which is in the possession of the Commissioners.

Mr. Neville gave an estimate for these works amounting to £43,350. This sum was made up of the following items:—

Stone training walls	£12,500
New dredge and hopper barges...	12,000
Dredging from the lighthouse to Soldier's Point	18,750
Total	£43,250

A modification of the plan of 1864, including a considerable extension of the training walls, received the sanction of the Board of Trade in 1870, but I have seen no estimate of these works (PLAN III.)

I learn from Mr. Cahill's reports that the construction of the training walls was carried on till 1881, when the walls were stopped. According to a return made by the Commissioners to the Board of Trade in 1883, a sum of £17,100 had been expended on these works, exclusive of dredging plant. The training walls remain at the present time substantially in the same condition as when this return was made in 1883, with the exception that the wall at the East Bank was raised last year, as recommended by me.

MR. CROSTHWAITE'S SURVEY OF 1893-96 (PLAN IV.).

Mr. Crosthwaite's survey places the Harbour Commissioners for the first time in full possession of accurate information regarding the condition of their port. This information includes a plan of the navigable channel from the quays to the bar, showing the position of the existing training walls, beacons, piers and buoys; a complete set of cross-sections from the quays to the lighthouse, together with numerous diagrams of tidal observations. On the six inches to the mile Ordnance map, Mr. Crosthwaite has shown the levels of the North and South Bull sands and soundings across the bar. Bormys have also been made in the channel from the bar to the quays. In addition, he has presented a valuable report to the Commissioners embodying the results of his observations.

Mr. Crosthwaite very wisely adopted the Ordnance low water as the datum to which to refer his soundings and levels. This is of considerable importance for the sake of future reference, as this datum can be easily recovered by the aid of the numerous Ordnance bench marks in the neighbourhood of Dundalk.

The want of such a datum in most of the early surveys of the harbour makes them of little value for the purpose of comparison.

It will assist the Commissioners in the consideration of this report if I give a brief abstract of the principal facts established by Mr. Crosthwaite's observations:—

1. Since the construction of the training walls of the Outer Harbour the North Bull sands have extended considerably seawards.
2. In the same period the South Bull has extended seawards, but not to the same extent as the North Bull.
3. Very accumulations of sand have taken place on the North Bull in the neighbourhood of No. 4 Beacon and of the East Bank, since the construction of the east training wall.
4. There is evidence of tilting up of the strand between No. 7 Beacon and Tipping's quay, by silt brought down by the rivers and dredged material deposited behind the walls.
5. On the west side of the channel between Beacons No. 2 and No. 5, there is evidence of the deposit of large quantities of dredged material behind the walls.
6. In the last thirty years the bar has moved further out, and there is no increase in the depth of water over it.
7. The maximum range of tides observed by Mr. Crosthwaite was 17 feet 2 inches and the minimum range 6 feet 4 inches.
8. The range of the tides at the lighthouse and at the Railway quay, is practically the same.

I have endeavoured to place before the Commissioners a historical statement which will help them to form an idea of the past history of their port, its gradual growth, the efforts which have been made in the past for its improvement and the results which have been attained.

The question which appears to me of most importance is whether the Commissioners would be warranted in proceeding on the same lines as have been followed during the last thirty years, and if not what course should be adopted, bearing in mind the necessity of improving the port for the purpose of retaining and if possible extending its trade, and at the same time keeping in view the limited funds available. This I understand to be the reason why the Commissioners have sought my advice.

I would beg to refer the Commissioners to the following extract from my preliminary report of the 29th May, 1895:—

"The general design of the training walls in the Outer Harbour was laid out by the late Mr. John Neville. Mr. Cahill, your resident engineer, has loyally adhered to and consistently carried out Mr. Neville's plan as far as his funds at his disposal permitted.

"In discussing these works it is important to bear in mind the object for which they were designed. Up to the year 1864 the channel between Soldier's Point and the bar was constantly changing in direction, width and depth. As an example of this, Captain Hoskyn mentions in his report that 'when the present lighthouse was built in 1855 the channel was to the eastward of it; at the period of the Admiralty survey in 1858 it was to the westward of the lighthouse, and is now (1863) again on the east side of it.' Such, then, was the state of the channel at the time of Mr. Neville's report of March 8th, 1864. From this report it is quite clear that his aim was to regulate the navigable channel from the lighthouse to the Point, and fix the channel across the bar by means of guide walls and the assistance of steam-dredging.

"Mr. Neville was not very sanguine that the works would result in any very great increase of depth of water, for he says, 'the harbour must always remain a tidal one'; but in criticising his design it is only just to bear in mind that the shipping requirements of his day were very different to present-day requirements."

The views which I expressed in my preliminary report as to the effect of these walls have been fully confirmed by Mr. Crosthwaite's survey. I regret to say that I have been forced to the conclusion that the training-walls, as designed and carried out, have been injurious to the best interests of the Port of Dunalk. They have led to the accumulation of vast quantities of sand on the North Bull, which form a constant menace to the navigable channel; they have excluded an immense volume of tidal water from this channel, and have led to an outward movement of the bar, while, at the same time, they have not produced any increase of depth of water either in the channel or on the bar.

It is gratifying, in the face of results so disconcerting, to be able to bear witness to the good results which have been obtained by the dredging operations carried out by the Commissioners. Mr. Crosthwaite's observations prove conclusively that the range of the tides at the lighthouse and at the Railway quay are now practically the same, whereas 30 years ago the range at the quays was very much less than at the lighthouse. This change is undoubtedly due to the removal of shoals by dredging, and has been accompanied by the admission of an additional volume of tidal water into the Inner Harbour.

It is a matter of regret that some of the advantages gained by dredging have been neutralized by the deposit of the dredged material behind the training walls or close in situations where the flood tide has a tendency to wash it back into the harbour or on to the strands. As no great distance from the lighthouse there are sites in which an almost unlimited quantity of dredged material could be deposited without the possibility of injury to the harbour.

FINANCIAL POSITION OF THE COMMISSIONERS.

From the information kindly placed at my disposal by your late Chairman, Mr. Palfreys, I understand that the loans due by the harbour in 1895 have been consolidated into a loan of £35,000, on which interest at the rate of 3½ per cent. per annum, amounting to £1,235, is to be paid. After repayment of the loan to the Board of Public Works, and also the debenture debt, it is estimated that there will be a sum of about £10,000 at the disposal of the Commissioners.

According to a return which has also been handed to me of the receipts and disbursements for the three years ended 31st December, 1895, it appears that exclusive of interest on loans, expenditure on the Outer Harbour works, and dredger and survey expenses there was an annual credit balance of £4,393. If from this we deduct the interest on the new loan, namely £1,235, there remains a net average annual balance of £3,158.

If the £10,000 surplus capital be not raised, or if it can be reinvested at 3½ per cent., a further sum of £350 would be available annually, making the balance to credit available for improvements £3,518.

I am very strongly of opinion that the Commissioners should for the present limit their annual expenditure on works for the improvement of the Outer Harbour to this sum, and if possible to keep the £10,000 in reserve for future contingencies.

From what I have already said, it will be clear to the Commissioners that I am not prepared to recommend the extension of the existing training walls. It may, however, be a satisfaction to them if I give an approximate estimate of the cost of completing these walls in accordance with Mr. Neville's plan of the year 1870.

In Mr. Neville's report of March 8th, 1864, he estimated the cost of the guide walls then proposed and shown on his plan No. 4 as £12,500. The length of walls shown on this plan was about 13,600 feet. The cost was therefore estimated at about £1 per foot. In his plan of 1870 sent to the Board of Trade, the east wall is shown extending 4,000 feet beyond the lighthouse, towards the bar, with a new lighthouse at its extremity. The west wall is shown extending 3,000 feet seaward of No. 2 Beacon where it now terminates, and the gap in the east wall between No. 4 Beacon and the Rock Beacon, 3,000 feet in length, is closed. So that to complete the wall as proposed by Mr. Neville, about 10,000 feet of wall at a cost of £10,000, would have to be built, and a new lighthouse constructed at a probable cost of £6,000, thus making a total cost of £16,000 exclusive of dredging. I am, however, of opinion that this estimate, based on Mr. Neville's figures, is altogether too low, considering the greater exposure and depth of water in which these walls would have to be constructed than those already made. These works would absorb a large portion of the Commissioners' funds in the walls alone, and I could not hold out any hopes that they would benefit the port in the slightest degree.

I have no hesitation in saying that a system of walls could still be constructed which would materially improve the entrance to the port across the bar, but I fear very little improvement could be expected in the channel between the lighthouse and Soldier's Point by this means, unless accompanied by the removal of a considerable length of the walls already constructed. Any such proposals would prove ruinously expensive, and I have been forced to fall back on dredging as the only financially possible expedient for extending the port from its present very critical position.

I estimate that for each foot of additional depth in the channel from the bar to Soldier's Point, 500,000 tons must be dredged. I find that the Commissioners have only dredged 179,388 tons in the four years ending 31st December, 1895, or an average of 44,847 tons per annum. From the published accounts I estimate this dredging has cost on the average £1,595 per annum, or 8½d. per ton.

In making this estimate I have charged the tug to dredging, and credited the account with the earnings from towage. This I consider a proper course, as the tug is essential for the towage of the hoppers, and would hardly otherwise be maintained for the small amount of towage done for the public.

I think it will be evident from the foregoing figures that the quantity which has been dredged in the port is quite insufficient to produce any very marked improvement. In fact, as long as the North Bull sands were passing over the east training wall and forming the East Bank, the amount taken out of the channel by dredging did not, I believe, equal the quantity of sand coming into the harbour.

The dredging plant of the Commissioners is good of its kind, but it is quite unfit for dredging the bar, except when the weather is exceptionally fine. Modern engineering has placed at our disposal appliances capable of removing sand banks in exposed positions at a comparatively small cost, and enables us to undertake dredging operations which a few years ago were considered impossible. I believe that it is to the sand pump or suction dredger that we must look for the improvement of the approach to Dundalk Harbour. The success which has followed its operations on the Mersey bar is probably well known to the Commissioners.

It has been equally successful in the construction of the new approach to Rotterdam and in improving the entrances of Ostend, Dunkerque and Calais, as well as many Colonial ports. From the information obtained by Mr. Crosthwaite, I have very little doubt of its success at Dundalk, and I believe that the amount dredged annually there could be increased six or seven fold without exceeding the surplus revenue at the disposal of the Commissioners. I have given much consideration to the question as to the best manner of undertaking this work. There seem three courses open to the Commissioners:—

1. They can purchase plant and carry on the work themselves.
2. They can hire plant and carry on the dredging with their own staff, or,
3. They can enter into a contract with an experienced contractor to carry out the work.

The first proposal would involve the expenditure of about £7,000 in the purchase of plant, and carrying on the work with men inexperienced in suction dredging. The second proposal would necessitate a considerable expenditure in hire and insurance, and the Commissioners would have the same difficulty of working with inexperienced crews.

The third proposal would enable them to enter into negotiations with contractors who would provide suitable plant and experienced men.

I am in favour of the latter proposal, and would recommend the Commissioners to enter into an experimental contract for the removal of a limited number of tons from the bar. By this means any doubts will be settled as to the possibility of sand pumping at Dundalk, and both the contractor and the Commissioners will obtain information, which will settle whether the price of a subsequent contract can be reduced, or whether it will be more economical to do the work departmentally with the Commissioners' own plant.

THE BAR BUOYS AND LEADING LIGHTS.

(PLAN IV.)

The most remarkable feature brought to light by Mr. Crosthwaite's survey, is the difference in the position of the deepest channel across the bar, from what is shown on the most recent Admiralty chart of Dundalk Bay. In consequence of this great discrepancy, I thought it advisable to verify it by personal inspection, and interviews with some of the most experienced seamen connected with the Port of Dundalk. Accordingly, I went to Dundalk on the evening of March 30th, and inspected the Outer Harbour early on the morning of the 31st, in company with Mr. Crosthwaite. There was an exceptionally low tide, so that I had a good opportunity of comparing from the lighthouse the varying levels of the strands with the levels given by Mr. Crosthwaite. I had the advantage of proceeding in the Commissioners' tug as far as the middle bar buoy in company with your harbour master, Captain Hughes, together with one of the senior pilots, Mr. Ferguson, and Captain Lynch, who trades regularly into the port, and who had been asked to meet me. To each of these gentlemen I am indebted for much valuable information and kindly assistance. From them I received complete confirmation that the deepest water entering the harbour is on a course leading from the present position of the middle bar buoy to the wreck buoy, at the west side of the channel, opposite the lighthouse, as shown on Mr. Crosthwaite's survey, and not in the direction indicated by the leading lights. These lights were, I understand, erected in 1893, and at that time the middle bar buoy was, as shown on the Admiralty chart, about 2,300 feet north east from its present position. I was told that the buoy was shifted after the leading lights were lit, but on this point I did not get very explicit information. I believe that the range of the leading lights and the position of the buoy on the Admiralty chart fairly define what was the best channel in 1893, but I cannot believe that the channel was in this position in 1893, and has in three years shifted some 2,300 feet to the westward.

I believe that the movement of the channel to the westward has been gradual, and that the leading lights must have been erected under the impression that the middle buoy was in its proper position.

The position of the inner bar buoy was also brought under my notice. As at present placed, it is of little or no use, but if moved sufficiently to the westward, it would be useful in guiding vessels clear of the light-house bank. It was also pointed out that if the wreck buoy at the west side of the entrance were converted into a conspicuous channel buoy, it would be of great assistance to seamen. I had the advantage of seeing the Dundalk and Liverpool paddle steamer "Enterprise" coming in on the flood tide and noting the course taken; we also followed in her wake up to the quay, where I had an interview with Captain Williams, who confirmed the foregoing observations in regard to the buoys and leading lights.

In the evening I had another opportunity of inspecting the harbour, when the lights were lit. We left the quay at 9.30 p.m. in the tug, and proceeded to the middle bar buoy, thence on a north-east course, until the range of the leading lights was reached, thus repeating our morning course and confirming our observations by the aid of the lights.

I should like to bring under the notice of the Commissioners what seems to be a defect in the

distribution of the light exhibited from the lighthouse. Vessels entering by the proper course from the middle bar buoy are in the bearing in which the light is marked "not visible" on the chart. I had the opportunity of confirming this on the evening of the 31st of March, for although reflected light from the buoys was visible, yet the character of the light as a flashing light was destroyed in a bearing, in which it should be unmistakable. The explanation I think is clear. The distribution of the light was arranged when the entrance channel to the harbour was east of the light, and a vessel entering did not lose the white flashing light. No alteration has since been made in the light, although the channel has shifted to the westward.

The simplest remedy is to extend the arc through which the present red flash is seen over the arc in which the light is now marked "not visible." It appears to me that a red flash would be as great a protection to vessels in clearing Dummy reefs as the present arrangement, and at the same time it would be a distinct gain to vessels entering the harbour. This is, however, a matter entirely in the hands of the Irish Lights Commissioners, but I think that if they were aware of the alterations which have taken place in the approach to Dundalk Harbour, they would see the force of these suggestions. Their sanction should also be obtained to the alteration of the leading lights as soon as possible, in compliance with section 653 of the Merchant Shipping Act, 1894.

It would be of advantage, when erecting the new leading lights, to place them in such positions that they could be lit by the men attending to the river lights.

If the other leading light was placed on No. 2 Beacon, and the inner light on the spar adjoining No. 3 Beacon, this object would be obtained and lead to economy.

It would also be an advantage to make the inner leading light 10 or 15 feet higher than the outer light to identify it more readily.

Should the Commissioners decide on improving the buoyage of the bar, it would be well for them to consider the propriety of adopting the uniform international system recommended by the Lighthouse Authorities, and very generally adopted by the leading ports, namely, flat-topped can buoys, coloured black, on the port hand, and conical buoys, coloured red, on the starboard hand entering the harbour. The red lights on Channel beacons should also be on the starboard hand entering the port.

RECOMMENDATIONS.

I beg to close my report with the following summary of the recommendations contained in it:—

1. That no further extensions of the training walls be sanctioned, but that any stone at present in the possession of the Commissioners be reserved for the purpose of raising the wall at the East Bank in case it is again covered with sand from the North Bull.

2. That the Commissioners endeavour to enter into an experimental contract for deepening the channel across the bar by sand pumping with an experienced firm, who have plant for the purpose. The negotiations for such a contract could scarcely be completed in time for beginning work this year, but everything might be completed so as to begin operations next spring.

The arrangement of such a contract will, of course, involve very careful consideration, and its execution will necessitate vigilant supervision on behalf of the Commissioners to avoid wasteful expenditure. To judge of the results of such dredging operations, the Commissioners should be furnished by their Engineer with periodical surveys of the bar channel, so that they may be able to judge of the progress made.

3. That the Commissioners' steam-dredger be employed this summer dredging in the channel, between sections No. 72 and No. 89 of Mr. Crosthwaite's survey, for the purpose of straightening and widening the channel between these points, and to remove the shoal-ground left behind the dredger last year. These shoals are clearly shown on the plan and should be deepened to at least four feet below datum.

4. The depositing of the dredged material within the harbour should be absolutely forbidden, and bopper barges should be towed out into the bay so as to discharge in not less than five fathoms at low water.

5. That reports be obtained from your Harbour Master, and from the most experienced pilots and captains frequenting the port, on the proposals I have made respecting the lights and buoys, and if these meet with their approval that application be made to the Irish Lights Commissioners for permission to have them carried into effect as soon as possible.

As soon as these matters have been arranged I would recommend that a copy of Mr. Crosthwaite's survey be sent to the Hydrographer of the Admiralty in order that the official charts and sailing directions may be corrected.

Although I must admit that the approach to the Harbour of Dundalk is at present in a very critical condition, yet I believe, if the Commissioners proceed on the lines which I have pointed out, Dundalk may before long take a very important position among Irish ports.

I have to acknowledge my indebtedness to your officers for the kindly assistance they have given me, and also to your late Chairman, Mr. Patterson, for obtaining for me, from time to time, information I needed.

In addition to the four plans attached to this report, I beg to send, for the information of the Commissioners, the following plans, maps and charts:—

1. A general plan of the Port of Dundalk at a scale of four inches to the mile, showing the levels of the strands from Mr. Crosthwaite's survey and the depths in the bay from the Admiralty chart.

2. A copy of Mr. Crosthwaite's survey of the channel, bar, and strands on the six inches to the mile Ordnance maps of the port.

3. The latest Admiralty chart of Dundalk Bay, showing the leading lights, the distribution of the light as exhibited from the lighthouse, and the middle bar buoy in its old position.

4. A tracing of Mr. Crosthwaite's enlarged plan, on which I have marked the channel, which I recommend the Commissioners to cut through the bar.

I have the honour to be, Gentlemen, your obedient servant,

JOHN PURSER GARDNER, M.INST.C.E. AND M.INST.C.R.I.

DUNDALK HARBOUR.

(c).—TO THE HARBOUR COMMISSIONERS, DUNDALK.

Rathmines Castle, Dublin.

October 18th, 1906.

GENTLEMEN,

In compliance with the request conveyed through your Secretary, Mr. J. F. Farrell, I have again carefully considered the condition of Dundalk Harbour, with the object of advising you as to the steps which should be taken for its improvement. I have had the benefit of hearing the views of several of the Commissioners, and of obtaining information from your Secretary and Engineer as to the present condition of the Inner and Outer Harbour, and of the works carried out since I had the honour of reporting to you on the 1st of May, 1896.

The Commissioners are, I believe, acquainted with my report of that date, and of the recommendations contained in it. It may, however, be well to give the following summary of these recommendations:—

1. That no further extensions of the training walls be sanctioned.
2. That an experimental contract be entered into for sand pump dredging.
3. That the Commissioners' bucket-dredger be employed in straightening and widening certain portions of the channel specified in the report.
4. That the deposit of dredged material within the harbour be forbidden.
5. That certain defects in the lights of the harbour, as discovered by Mr. Crosthwaite's survey, be remedied.

I understand that the three last recommendations have been carried out; but it is with the greatest regret that I find that the first recommendation, "that no further extension of the training walls be sanctioned," has not only been disregarded, but that about £3,000 has been expended in extending the training walls. In regard to the second recommendation, referring to suction-dredging, no real steps were taken to do this until the present summer.

From the information I have received, I believe that the condition of Dundalk Harbour is, to say the least, no better than it was ten years ago. The Commissioners will readily understand that, in consequence of the most important of my recommendations not having been carried out, I have felt considerable hesitation in reporting again on this subject.

Being, however, wishful to assist the Commissioners to the best of my power, I have very carefully considered the present condition of affairs in your harbour. I have come to the conclusion that the only prospect for improvement depends on the vigorous dredging of the channel. I have already on several occasions advised the Commissioners that this dredging should be carried out on a definite and well-considered plan. I had hoped that the Commissioners with the aid of their officers would decide on some definite policy; but as I have been asked to advise on this policy, I would make the following recommendation:—

That all efforts should be concentrated in making a channel from the bay to the quays of sufficient depth to allow vessels engaged in the coasting trade to enter and leave the port at all states of the tide.

I estimate that each additional foot in depth of the channel from Dundalk Bar to the quays will require about 750,000 tons to be dredged; and to carry out this programme, of a port open at all states of the tide to the coasting trade, about 7,500,000 tons must be dredged. At fourpence per ton this would represent £300,000. In addition to the above, £20,000 would be required for plant and appliances.

The first question that arises is, Can such a programme be faced with the Commissioners' existing dredging plant?

The Commissioners' dredging plant consists of a bucket-dredger, four hopper barges, and tug. They have done useful work, and at the time of construction were considered up to date. Unfortunately the output of dredged material has been restricted by the limited funds at the disposal of the Commissioners, the period during which the plant is worked being only a fraction of the year, and the number of hours worked per day being limited by the shallowness of the channel.

The quantity dredged by the Commissioners' plant during the last ten years has averaged 58,000 tons per annum, and cost about eightpence halfpenny per ton. This is costly, as it does not include any charge for interest, depreciation, or sinking fund. The dredging done has in my opinion barely maintained the harbour; and if the harbour is to be improved, the quantity dredged must be greatly increased. Fortunately there are considerable portions of the harbour which may be dealt with by suction-dredging; and on this system of dredging I believe the Commissioners must depend for much of the future improvement of their harbour.

It is satisfactory that the Commissioners were able this summer to carry out my suggestion of last February, that an experiment in suction-dredging should be made at Dundalk with the dredger belonging to the Department of Agriculture.

I have now received the reports of the Master of the dredger, and also a report of my son, Mr. Frederick P. Griffith, B.A., B.A.T., who was in Dundalk throughout the period during which the dredger worked in the harbour.

Experiments were made with the dredger on the Bar, the East Bank, at Number 5 Pier, at "The Hard," the entrance to Ballymascanlon River, and opposite the Steam Packet Quay.

In all these places it was proved that the material could be removed by suction-dredging, and no greater difficulties were encountered than have been met with in Dublin.

On the Bar the material was fine sand overlying a layer of clay. On the East Bank, which has been formed by sand brought over the training-wall, the material resembled that on the Bar, but was naturally somewhat easier to dredge, being of recent formation. At Number 5 Pier the material dredged was mostly gravel, and here again clay was met with underlying the gravel. The result of the experiments on "The Hard" was remarkable. The place had already gained an unenviable notoriety as a place difficult to dredge. Unfortunately, owing to the weather and the termination of the charter, prolonged experiments at this place were impossible with the suction-dredger. Two experiments were made in this locality. On August the 1st, when the dredger was brought to "The Hard," it was impossible to work on account of the strong wind and swell; but on August the 14th the dredger filled its hopper with great ease, the load consisting principally of large and small gravel and shells. In fact, the rate of filling the hopper exceeded that at any other place where the vessel was tried at Dundalk, reaching 2-44 tons per minute. The material found near the mouth of the Ballymascanlon River was similar to that of the Bar, with, however, a mixture of alluvial matter. At the Steam Packet Quay the material was chiefly mud, overlying clay.

The experiments were carried out with and without barges, and demonstrated that for Dundalk it is desirable to have large hopper capacity in order to give the material time to deposit. As regards the dredging of the Inner Harbour, it seems clear that arrangements should be made for pumping the material ashore. Indeed, now that almost all advantage to be derived from the tidal scour of the water flowing from the North Bull into the harbour has been lost, owing to the recent extension of the training-wall, it may possibly prove economical to pump the sand from the channel of a portion of the Outer Harbour over the eastern training-wall, and thus save the cost of, and the delay consequent on, sending the sand out to sea in hopper barges.

Dundalk is at present spending out of revenue about £2,000 per annum in dredging 58,000 tons. This quantity might be increased by economical management; but even if this were done, the present plant of the Commissioners is quite insufficient for the needs of the Port. If the Commissioners decided to spread the work of the construction of the channel which I have suggested over a period of twenty years, it would be necessary to dredge about 350,000 tons per annum at an annual expenditure of about £26,000. Even if the sum of £2,000 was still drawn from revenue, a further sum of £4,000 per annum would have to be provided. As this would be distinctly for a work of improvement, it might reasonably be paid out of capital.

How the necessary funds can be provided is obviously a question of the greatest importance. The total capital to be raised for this work would be about £100,000. This would be borrowed as required, and the interest and sinking fund should probably not exceed $4\frac{1}{2}$ per cent.

I have no doubt that as increased facilities are given in Dundalk Harbour, the number and tonnage of vessels entering the Port would increase, and the revenue of the harbour expand. But in the first instance I think funds should be raised on a town or county guarantee. There can be no doubt that the improvement of the Port would be beneficial to the surrounding district, and especially to the town of Dundalk; and I do not see why they should not guarantee the interest and sinking fund of the necessary loan, as has been done elsewhere.

A Marine Works Bill for Harbours on the east coast of Ireland is in contemplation, and Dundalk might possibly participate in its advantages.

The only way to gain additional revenue for the Port of Dundalk is by offering facilities and inducements for additional vessels to come to the Port. No greater inducement can be given than a safe and open channel. For the maintenance of a passenger, goods, and cattle service with cross-Channel ports, fixed boat sailings are becoming essential; and without such fixed-hour sailings Dundalk cannot compete with Belfast, Dublin, or Greenore for this trade.

I would therefore very earnestly press the Commissioners to face the difficulties connected with the improvement of Dundalk Harbour. The only hope is the adoption of a vigorous policy, coupled with vigilant and economical engineering. Whether the dredging of a channel such as I have proposed be carried out by contract or by the Commissioners' own plant and workmen it will require close supervision on behalf of the Commissioners; and the employment of a skilled marine surveyor, so that the Commissioners may be fully informed of the progress of the work, and monthly surveys made. I may say that personally I favour such work being done by the harbour authorities themselves.

I remain, Gentlemen, your obedient servant,

JOHN P. GRAFFIEN.

APPENDIX No. 30.

PROPOSALS for the Improvement of Dundalk, transmitted by the Secretary to the Dundalk Harbour Commissioners after Evidence given on 26th September, 1918, by Mr THOMAS COLLINS MADDIE, J.P., D.L., a member of the Harbour Board.

DUNDALK HARBOUR COMMISSION.

Dundalk, October 9th, 1918.

PROPOSALS FOR THE IMPROVEMENT OF DUNDALK HARBOUR.

Having obtained further estimates as to the probable cost of the works proposed in our statement to the Committee for the improvement of Dundalk Harbour we have come to the conclusion that the following figures will meet the requirements:—

(1) For dredging the channel from the bar to the quays to a depth of 4 feet, say 2,000,000 tons of material at 6d. per ton, £50,000. This figure is based on the Board's proposal being accepted to, that the necessary dredging plant be lent by the Government free of any charge for hire.

(2) For the purchase of the quays, piling, and extension of the front so as to leave a minimum width of 60 feet along the quays, the laying of additional lines of railway, provision of cranes, mechanical haulage for wagons and other necessary equipment £50,000.

Total loan required £100,000 at a maximum of 6 per cent. for interest and Sinking Fund. Annual charge £6,000.

(Signed) THOMAS CORNICKE, Secretary.

APPENDIX No. 31.

STATEMENT transmitted by Mr. Charles McKee, Chairman of Meath Farmers' Association, relative to railway communication between Kells and Mullingar for the purpose of giving direct access to the Port of Drogheda.

To the Chairman and Committee of enquiry in regard to Inland Transport.
Sir Arthur Shirley Benn, M.P., and Gentlemen of the Committee.

As Chairman of the Meath Farmers' Association I wish to impress on your Committee the very great necessity for railway communication in the portion of the County Meath which would be served by the proposed Kells to Mullingar railway, which was brought under your notice at your recent enquiry in Drogheda.

On the occasions when this scheme was previously brought forward it received the unanimous support of the farmers and traders in the district which it was proposed to serve.

At these periods such a line of railway would have been a great benefit and a great convenience to those districts, but now it is an absolute necessity. Up to the time of the passing of the compulsory tillage orders, tillage in most parts of County Meath was of very small extent, and therefore did not entail much transport, but under the altered circumstances now prevailing, whereby large landholders are compelled to cultivate up to 20% of their arable lands, a speedy and efficient means of transport cannot be done without, if tillage is to be successfully carried out. Large quantities of seeds, manures, and up-to-date farming machinery will require to be imported, and the considerable amount of grain, etc., which the lands under cultivation will produce, will require to be exported.

I respectfully submit for your consideration that if the landholders have to convey these various commodities in and out, by the present slow and expensive system of cartage, over long distances they will not be in a position to carry on a large tillage scheme in a manner either profitable to themselves or of benefit to the community at large. The very small labour supply available in the thinly populated areas through which the proposed line of railway would run will have more than sufficient work to do on the lands without spending a very large portion of their time carting materials long distances. The benefits to the live stock industry which were amply proved in previous enquiries with regard to the proposed line apply with much greater weight now. The largely increased value of such stock will considerably add to the then estimated monetary value of deterioration of stock consequent on long walking to and from existing railways. It will also no doubt be apparent to your Committee that the abnormal waste of energy, especially now with increased cost of coal, labour, etc., required in the conveying of live stock by circuitous routes, is magnified to a great extent.

In conclusion I wish to say that I have never known a scheme for the promotion of which public funds have been asked to show such an apparent immediate benefit to the districts proposed to be served and the community at large as the proposed Kells to Mullingar Railway connection. The suggested improvements to the Port of Droghda, whereby a more efficient cross-Channel service might be maintained and the traffic handled in a satisfactory manner, would be of immense benefit to all the surrounding districts.

CHARLES MCKENNA.

APPENDIX No. 32.

Statements and Notes (Ten in number, lettered a) to (j) inclusive) relate to Galway as a Steam-Trawling Port; the expenditure on Marine Works by the Department of Agriculture and Technical Instruction for Ireland; the condition of Fishery Harbours; the number of fishing boats in use; the quantities of Fish landed; the dates of Herring Fishing Seasons; and particulars of Dredging Plants landed in by Mr. E. W. L. Holt, Chief Inspector of Fisheries Department of Agriculture and Technical Instructions for Ireland during his examination on 27th September, 1918, or subsequently transmitted by him.

(e) GALWAY AS A STEAM TRAWLING PORT AND PORT OF EXPORT FOR CURED MACKEREL AND HERRING.

I am assuming that Sir John Griffin has put the Sub-Committee in possession of his views as to the possibilities of providing for the above developments, should they be practicable. The scheme, I understand, provides for a harbour at Galway suitable for Transatlantic vessels of the largest class with a corner available as a home of steam trawlers, with all its necessary shore appurtenances of engineering and tackle making shops, ice plant or stores, fuel stores, and the like, and with provision for passing fish through to English markets without handling or transshipment stations, because no reasonable person affects to believe that Ireland can absorb the product of a large steam trawling enterprise.

The question seems to depend upon whether the requisite facilities can be provided at a figure which could compete with the cost of at most three days sea time of a crawler from and to Milford or Fleetwood. On this point I am unable to offer an opinion, for it seems to depend on the rates at which the Midland Great Western Railway, the cross-Channel service and the English and Welsh railways to market centres might find it worth while to convey fish. I observe, however, that there are productive trawling grounds off the north and north-west and on the south and off the south and south-west of Ireland which might profitably occupy boats from England and Wales on their voyages to and from any grounds which are less distant from Galway. These grounds may of course be worked out sooner or later, and in so far as economy the lake grounds off the Tearaght, I believe it will be sooner rather than later. Yes, however, on both ways, as I suppose these same grounds would be relied upon as a soft thing for boats working from Galway.

The matter really resolves itself into a consideration of whether the off shore trawling grounds which are materially nearer to Galway than to any British port, give promise of supporting a trawling enterprise commensurate to the necessary capital expenditure. As to this, the only available evidence is derived from the statistics of trawling from English and Welsh ports, and these deal with operations on practically virgin grounds, which have yielded a catch which cannot be regarded as continuously available. Assuming that the records deal only with the area to which they are allotted and take no account of falling en route, there is evidence that the off shore grounds nearest to Galway have yielded a good living to 14 boats working for 12 months, or 28 boats working for 6 months, a period more suitable for Atlantic operations. There is, I think, an indication that even in the brief period covered by these pioneer operations the paving of skids has been materially thinned, while hake, which I take leave to regard a fish susceptible of rather rapid extermination, are the most considerable item in the catch. The grounds suitable for trawling are really not very extensive in area, when one considers depth, facilities and nature of bottom, and I express my personal opinion that they are incapable of continuously sustaining a large trawling enterprise.

No doubt suitable traffic and fuel provision would be availed of by British trawlers to lessen boating expenses when they may be working the western Irish grounds, but that is a different matter from the acclimatization of a steam trawling community.

As to cured mackerel and herring (in so far as the latter are or may be in demand in America), to count the establishment of Transatlantic traffic from Galway coupled with a proper coastwise service thereto

would sooner or later transfer the export mackerel business from Liverpool to Galway, especially since such coastwise traffic would tend to extinguish the demand, at any price, of cargo for empty tonnage returning to Liverpool. As to herring, I can offer no opinion as to post-war export demands, but I do not think that Galway would be the most considerable outlet of this commodity.

(6)—STATEMENT OF MARINE WORKS CARRIED OUT BY DEPARTMENT OR TOWARDS
THE COST OF WHICH THEY CONTRIBUTED.

COUNTY LONDONDERRY.

Portadown, 1911-12.—Improvement of harbour. Cost unknown; work carried out by Board of Works with the aid of contributions from Sea Fisheries (£400) and County Council.

COUNTY ANTRIM.

Ballycastle, 1903.—Improvement of harbour. Work carried out by County Council with the aid of the contribution of £175 by Sea Fisheries.

Belfast.—Improvement of harbour and boat-slip. Cost £3,931, viz.: Agricultural Endowment £3,171, County Council £760.

Ballynahone, 1906-14.—Improving and caring harbour. Cost £2,408, viz.: Sea Fisheries £1,458, County Council £648, Development Commissioners £300.

COUNTY DOWNS.

Portaferry, 1906.—Boat-slip. Cost £440, viz.: Sea Fisheries £167, County Council £293. Work done by County Council.

Grosvenor, 1903.—Improvement of harbour. Cost £633, viz.: Sea Fisheries £150, County Council £448. Work done by County Council, who appear to have done some further small work at their own expense.

Kilkeel, 1914-18.—Improvement of harbour and construction of inner basin. Estimate £23,000, viz.: Sea Fisheries £1,300, County Council £1,800, Development Commissioners £20,000. Probable total cost, £23,000.

Dumny, 1913.—Work designed to keep the harbour from filling up with gravel. Cost £493, viz.: Sea Fisheries £248, County Council £250.

Armagh, 1913-1917.—Improvement of harbour and approaches. Cost £8,697, viz.: Sea Fisheries £3,347, Agricultural Endowment £2,125, County Council £1,125.

Ballyvaughan, 1900-6. Pier and ship. Estimate £300. Cost £424. County Council contributed £150.

COUNTY DUBLIN.

Ballinaggon, 1909-13. Improving and dredging harbour. Cost £1,740, viz.: Sea Fisheries £7, Agricultural Endowment £500; Development Commissioners £463, Port and Docks Board £647, Local £133.

Loughswilly, 1905-6. Extension of Pier. Estimate £3,000; actual cost unknown. Work carried out by County Council with the aid of £1,500 from Sea Fisheries.

Malahide, 1912-13. Ship for small boats. Cost £114. Sea Fisheries. £15 spent on minor repairs in 1917.

COUNTY WICKLOW.

Arklow, 1907-18.—Deepening river and making inner basin with patent ship. Cost £14,000, Ireland Development Grant. Under an agreement with Messrs. Kynoch, Arklow, the basin has been extended at their expense so as to compensate for the continuous use of a part of it by their munition steamers.

Maintenance dredging of harbour cost Department £5,857 up to December, 1917.

COUNTY WEXFORD.

Courtenay, 1904-12.—A number of small works, clearing entrance and reconstructing dock entrance and sluices. Total cost £1,385, viz.: Sea Fisheries £498, County Council £494, Development Commissioners £299.

Foodagh, 1906-7.—Extension and improvement of quay, £2,969, viz.: Sea Fisheries £1,819, County Council £1,150.

Kilmore, 1905-7.—Estimate £1,000, cost unknown. The work, which consisted chiefly in joining up the "island breakwater" with the shore, carried out by the Council with the aid of a contribution of £500 from the Sea Fisheries. 1912, dredging cost £467, viz.: Sea Fisheries £88, County Council £250, Development Commissioners £349.

Slade, 1901.—Inner breakwater, £107 paid by County Council and £107 from Sea Fisheries Fund.

Ballyhack, 1914-15.—Improvement of harbour accommodation. Total cost £1,134 16s. 10d. County Council £450, Development Commissioners £510, and Department £174 16s. 10d.

COUNTY WATERFORD.

Passage East, 1907-8.—Improvement of harbour. Cost £6,872, viz.: Sea Fisheries £2,380, County Council £2,290, Board of Works £3,473. Work carried out by the Board of Works.

Tramore, 1903-8.—Reconstructing a ruined pier. Cost £4,985, viz.: Sea Fisheries £2,545, County Council £2,440.

Newtown Creek, 1908.—Improving approach and landing accommodation. Cost £116, viz.: Sea Fisheries £56, County Council £60.

Ballisoduff, 1903.—Clearing out harbour. Cost £275, viz.: Sea Fisheries £138, County Council £137.
Ardsara, 1904-6.—Cost, as far as known, £8,200, viz.: Sea Fisheries £1,244, County Council £1,000, Board of Works £556. Work carried out by Board of Works.
Helick, 1914-18. Construction of pier and breakwater. Estimate £21,000, viz.: County Council £2,000 and Development Commissioners £19,000. Expenditure to date £28,500. Estimated amount required to finish work, say £9,000.

THE FOLLOWING WORKS ARE NOW SITUATED IN CONGESTED DISTRICTS:

COUNTY CORK.

Adrigole, 1907.—Cost about £1,300. Department contributed £400 from Sea Fisheries and £900 from Agricultural Endowment. Work carried out by Congested Districts Board.
Bantry, 1909-10.—Clearing berths at old pier. Cost £245, viz.: Agricultural Endowment £145, County Council £100.

COUNTY KERRY.

Milard, 1905.—Beach-rip. Cost £464, viz.: Sea Fisheries £213, County Council £253.
Fent, 1910-11.—Construction of a new viaduct. Cost £7,000, viz.: Sea Fisheries £1,000, Board of Works £6,000. Work carried out by Board of Works.

COUNTY LIMERICK.

Poyser, 1908.—Repairs to harbour. Cost £900, viz.: Sea Fisheries £450, Agricultural Endowment £450.
Tragashole, 1906-7.—Reconstruction of quay. Cost £800, viz.: Agricultural Endowment £300, County Council £500. Work carried out by County Council.

COUNTY CLARE.

Hookstown, 1908-11.—Improvement of landing accommodation. Cost £453, viz.: Sea Fisheries £402, County Council £50.
Bally Glashin, 1910-15.—Improvement of landing accommodation. Cost £1,605, viz.: Sea Fisheries £70, Agricultural Endowment £1,200, County Council £335.
Lismore, 1904-11.—Improvement of harbour. Cost £6,551, viz.: Agricultural Endowment £2,844, Treasury £5,687. Work carried out by Board of Works under Marine Works Act.

COUNTY GALWAY.

Blackhair, 1911-12.—Reconstruction of quay. Cost £311, viz.: Sea Fisheries £151, County Council £60.

COUNTY DONEGAL.

Bunmahon, 1910-13.—Improvement of harbour. Cost £4,021, viz.: Sea Fisheries £1,377, Agricultural Endowment £1,000, County Council £1,568, Congested Districts Board £235.
Bahansha, 1907.—Dredging at pier. Cost unknown. Department contributed £50 from Sea Fisheries and £150 from Agricultural Endowment.

IN ADDITION TO THE FOREGOING, EXPENDITURE WAS INCURRED IN THE PROVISION OF THE FOLLOWING FACILITIES FOR FISHERMEN.

COUNTY WEXFORD.

Wreck at Omeke.—Erected 1911. Total cost £45. Department's Funds £38 6s. 8d. Local contribution £6 13s. 4d.
Wreck at Timoleary.—Erected 1912. Total cost £31. Department's Funds £24 6s. 8d. Local contribution £6 13s. 4d.
Capelin at Blackwater.—Erected 1911. Total cost £53. Department's Funds £46 6s. 8d. Local contribution £6 13s. 4d.
Wreck at Ballymore.—Erected 1912. Total cost £83. Department's Funds £26 6s. 8d. Local contribution £6 13s. 4d.

COUNTY WATERFORD.

Ballymore Wreck.—Erected 1913. Total cost £40, borne by Department's Funds.

COUNTY CORK.

Light at Castlesodrigg.—Erected in 1912 at a cost of £95. Contribution by Department towards maintenance £24.

(C)—MARINE WORKS.

COST OF CONSTRUCTION AND MAINTENANCE CHARGED AGAINST THE DEPARTMENT'S ENDOWMENT FUND,
April 1900 to 31st March, 1918.

	Sea Fisheries.	Cost borne by Agric. Board Surplus.	Total.
	£	£	£
Construction of Piers, Harbours, etc. - - -	29,573	12,849	42,422
Purchase and Upkeep of Dredgers to maintain depths of Harbours, etc. - - -	29,747	1,706	31,453
Totals - - - - -	£59,320	£14,555	£73,875

These figures represent the net cost to the Department's Endowment Fund after deducting all credits including contributions towards cost from Local Authorities and the balance of their revenue received from the Arklow Harbour Commissioners up to 31st March, 1918.

They contain a comparatively small amount for engineering expenses, being the cost of extra engineering staff temporarily employed whose salaries and expenses were paid out of the sums allocated for the various marine works on which they were engaged. They do not include the payments to the regular engineering staff which amounted in the above period to £17,729, comprising (a) £16,229 charged against Sea Fisheries in respect of works financed from that fund; and (b) £1,500 charged against Miscellaneous Expenses, Transit of Produce, in respect of works financed from Agricultural Board's Votes.

(d) NOTES RELATIVE TO FISHING HARBOURS IN NON-CONGESTED DISTRICTS.

The non-congested Districts extend along the coast from a little north of Londonderry on the West shore of Lough Foyle east about to Rosesherry in County Cork. Isolated coastal areas are the Urban District of Kesh in Co. Clare and the coast of Co. Limerick, but neither of these concern us in this connection. Returns are appended hereto of the number of fishing boats of different kinds at each fishing place in our sphere of interest and of the fish landed at most of these places and also at the most important fishing stations in Congested Districts in the years 1913 and 1917. The fish are classified as herring, mackerel and other sea fish, including salmon taken at sea and shell fish. The third column is therefore made up of the proceeds of trawling, line fishing and a certain amount of seining and trammel-fishing. The following is a brief account of the landing facilities at all our fishing places taking them in order from north to south.

Although the matter concerns really Movilla and Greencastle, which are in a Congested District, I may mention that on our side of Lough Foyle a railway line was laid some years ago from the Belfast and Northern Counties line to Magilligan Point. I believe it was intended to put up a pier at the Point and run a steam ferry between the Point and Greencastle, which would seem to offer a great improvement on existing facilities for getting fish to market from Greencastle and Movilla. The project, however, was abandoned and the rails taken up.

PORTADOWN.

The harbour affords ample accommodation for fishing boats of the largest type used in the country, but the Department's efforts to encourage large boat fishing have not prospered. The harbour mouth is liable to sanding, and from time to time the Company who own it have paid the Department to have it cleared by their suction dredgers. The latter, however, may not always be available when wanted.

On the opposite side of the peninsula is a cleft in the rocks called *Port an Dúin*, which is used in fine weather as a landing place for small boats, including fishing boats. There is a ruinous breakwater which formerly gave some shelter, and no doubt the place would be useful for small fishing boats sought by bad weather to the eastward, if it were made safe. Plans were prepared by the Department in consultation with the County Council and the Urban District Council, but nothing came of them because sufficient local contributions were not to be had. Pleasure boats are at least as much concerned as fishing boats, probably much more so.

DUNSEVERICK.

Here is a community of at least 30 fishermen, having no other means of livelihood, prosecuting their calling under most adverse circumstances. They keep their boats a field east of the village in a small cove, partly sheltered by an island.

In bad weather a heavy sea comes in through the eastern passage between island and mainland, and the boats may be idle for weeks. Provision, £3,000, for the breakwater across this passage and other works was being made in an application to the Development Commissioners when war commenced and all supplies from that source were cut off. The matter should certainly be pursued whenever funds become available, but the cost of work will naturally be much higher.

BALLINTOY.

This is a small harbour used by a community of fishermen who take every opportunity of fishing. It is also used for the despatch of tonnage from neighbouring works, and other trading purposes. In 1907 it was in imminent danger of ruin, and the Department agreed with the County Council to improve it and make it safe. Work was delayed by the negotiations involved in transferring the harbour from its private owner to the Congested Districts Board and from them to the Council.

It was finally completed in 1916 at a cost of about £2,406 made up as follows:—Sea Fisheries Endowment, £1,427; County Council, £648; Development Grant for Dredging, £230. Its present condition appears to be satisfactory.

RATHLIN ISLAND, CHURCH BAY PIER.

Previous to 1912 the only landing place was a small slip at Church Bay. This slip was at high water covered for about three parts of its length, and at low water there was only a sufficient depth to enable row boats to approach its extreme end, bow on; sometimes not even so much. All merchandise, provisions, &c., for the island were transported in open boats from Ballycastle on the mainland, a distance of six miles measured in direct line. Coal had to be landed in open boats from a collier anchored in the offing. Cattle for the mainland had to be shipped at this slip in open boats, and were often seriously damaged in the process.

In 1912 the Department commenced the construction of a pier in Church Bay, which was completed in 1915, and on 28th September of that year a steamer drawing 9 feet 6 inches lay alongside the pier with 31 feet of water at her stern.

The pier is 300 feet in length with a width of 16 feet, not including parapet. It is constructed of concrete blocks laid under water, and above low water the walls are carried up in concrete-in-situ. The pier-head is a monolithic mass of concrete-in-situ.

Some reconstruction of the old slip, extension and raising of the outer part, and the provision of a parapet were also carried out for the convenience of small boats.

The cost of all works, including plant, temporary buildings, and the construction of the temporary landing place necessary for the discharge of plants and materials, including cement, for the carrying out of the work was £4,859, of which the County Council of Antrim provided £750, and the Department £3,719 from Agricultural Vote Surplus, and £197 from Sea Fisheries.

The work has been handed over to the County Surveyor or for County Antrim.

BALLYCASTLE.

Landing facilities for fish or anything else have very much to be desired. Fishing is carried on as far as it is possible by a few small boats; and though I do not say that harbour improvements would lead to any great development of fishing, no development at all is possible without such improvement.

The real importance of the place from the fishery point of view is that fish produced at Rathlin must be marketed via Ballycastle. The same naturally applies to Rathlin agricultural produce, though fish is more perishable.

The Department always regarded their Rathlin and Ballycastle harbour schemes as interdependent, but whereas they were able to finish Rathlin, they have never been able to begin Ballycastle.

Prior to the war the Department had prepared plans for a modest harbour improvement at Ballycastle at a cost then estimated at £4,600, of which £750 was to be found by the Antrim County Council and the rest by the Department, chiefly from the Agricultural Endowment, the scheme being in the main concerned with transit of produce. The financial situation created by the war obliged the Department to withdraw their proposed contribution and application to the Development Commissioners was unsuccessful.

Some adequate landing accommodation at Ballycastle must certainly be provided whenever circumstances permit, but the Department's funds cannot be looked to for any considerable contribution. The pre-war estimate is now valueless, and I, personally, should be unwilling to enter upon work there unless assured of a substantial reserve over and above any now estimate that might be made, because the place is a palimpsest of old works, and one might meet every sort of unforeseeable difficulty in the course of a new work.

ISLAND MAREE.

This is the peninsula forming the east shore of Larne Lough. Two ferries connect it with Larne. The Departments were approached in 1910 with a view to improvement of the landing accommodation, which then consisted of two rather ruinous boat slips. A good deal was said about the probable development of fishing. The Department saw no reason to anticipate any such development, but considered the matter of sufficient importance in the interests of transit of produce to justify an improvement of the northern slip, near the lighthouse, at a cost estimated at about £650, of which they would have been prepared to recommend a contribution out of the Agricultural Endowment of one third (within a limit of £180) if the County Council would carry out the work and revise it. The Council, however, decided to take up the matter, of which no more has been heard by the Department since 1914. Some fishing is done from the peninsula but there is no prospect of any considerable development.

BANBOR.

The present fishing fleet consists of 12 motor boats and 5 other crafts. The large piers offer no shelter for these in an onshore wind and they are kept in a creek called the Long Hole formed by a ridge of rocks near one of the piers. They can only get in or out for about half the tide. Some time ago the fishermen by subscription closed a breach in the rock through which heavy seas used to break, but this work was destroyed in a gale last winter.

In 1904 the Department offered to contribute one-fourth of the cost, estimated at £10,000, of providing decent accommodation for fishing boats, but a difficulty then arose, as the "harbour" appeared to be private property and so the County Council could not spend money on it. I believe this obstacle no longer exists, so the project may be revived sooner or later.

GROOMSPORT.

This harbour formerly belonged to Major Percival Maxwell, who in 1900 offered to present it to the County Council and contributed £300 to the cost of repairs. The offer was accepted and the County Council carried out repairs costing £438 10s., to which the Department contributed £150 out of the Sea Fisheries Endowment. Boats are all right when they are in, but the approach is rather dangerous. Apart from fishing interests, the place has some importance as a pilot station for Belfast Lough.

PORTAVOGHIE.

This is one of the most important communities of fishermen in Ireland. Their boats are necessarily on the small side, about 40 feet or less on the keel, but you will find them at every herring fishery from Co. Antrim to Co. Waterford. Previous to 1911 their harbour accommodation was of the poorest, but in that year the Board of Works completed improvement works financed out of the Ireland Development Grant, and they are now fairly well off in the matter of safe harbours. A further improvement, however, is proposed whenever the County Council and the Department are sufficiently in funds, namely, the provision of beams to close the entrance in bad weather. The estimated cost is £215.

An extraordinary circumstance is that there is no road to the Harbour, which is approachable only through a mile or more of soft sand. Having regard to the importance of the place, not only for fishing but for the export of potatoes, the Department have signified their readiness to make a substantial contribution to the cost of an approach road, but the matter appears to be suspended until the resumption of the financial activities of the Road Board.

The ownership and maintenance of the harbour is peculiar. The County Council own the bulk of the original works and lease the remainder from the Board of Works at a peppercorn rent and get all the dues. The Board of Works maintain the harbour and appoint the harbour master on the nomination of the Council.

ARDGLASS.

Reference has been made to this Harbour in a memorandum about Killybegh. Its herring fishing season for large boats is April to October inclusive.

It is connected by rail with Ardara Railway Station, but this connection appears to be seldom availed of.

The harbour is not really well suited for "freshing" to English markets. In normal times fish usually go to Belfast by the Belfast and County Down Railway, are carted over Queen's Bridge and despatched either to Liverpool, Fleetwood or Haysdon, by the daily services between Belfast and these ports. A quicker but naturally more expensive route is by Dublin and North Wall.

KILKEEL.

The principal fishery on the East Coast of Ireland is the summer herring fishery, which lasts from May to the end of September. The history of this fishery in the past shows considerable vicissitudes, but at present and since 1908 it has been in a prosperous phase.

Roughly it is divisible into two sections, a southern based on Howth and a northern based on Ardglass and Killybegh.

Killybegh is worked altogether (or almost so) by the local fishing fleet, which has developed very considerably in recent years. The works at present in progress there are designed to give increased safe berthing and a greater depth of entrance channel, and have already proved of great benefit. Some of the Killybegh fishermen go to Dunmore in the herring fishing season, and they have a winter fishery at home carried on in small boats. Potatoes and granite from the Mourne Mountains are exported from Killybegh.

Killybegh is not further dealt with in this memorandum.

The statistics appended show that prior to the war a very large proportion of the herrings landed at Howth and Ardglass (up to 80 per cent. at the latter place) were cured for export. The principal market was in the Baltic ports of Germany and Russia, and the distribution of the imported herrings from these centres has been described in reports of the Fishery Board for Scotland and a report in the Department's Journal of 1912 by Mr. George Steven.

Steam and motor drifters from the coasts of Scotland, Berwickshire, East Anglia and Cornwall attend this fishery, especially during August.

In Howth in 1913 there were 27 boats other than Irish present during the month of August. In Ardglass at the same time there were 70. The total fleets included 47 steam drifters and 84 motor boats. The accommodation at both places is inadequate to the maximum demand.

The only outstanding requirement at Howth is an increase of non-tidal quay space, which so far as we know is a question of dredging. There is also a demand for a haulage slip for convenience of repairs to under water hulls, and overhaul and repair of tail shafts, propellers, &c., of motor boats. The nearest facilities of this nature are fishing boats at Dublin and Arklow, and are of limited capacity.

Ardglass has more serious disadvantages. The harbour is exposed to dangerous seas from the south and east, and its shores consist almost entirely of reefs of rocks which also render part of the berthing at the pier dangerous.

Owing to the above conditions and the small size of the harbour it does not appear probable that any reasonable expenditure of money would suffice to bring it up to the requirements of the fishing industry. There is no water supply for vessels, and no apparent possibility of providing one, and the nearest facilities for repairs are at Dublin (25 miles) or Belfast (30 miles).

The Department have been impelled, therefore, to consider the possibility of elsewhere securing better accommodation for the fishing fleet, and desire to direct the attention of the Committee to the merits of Killybegh in this respect.

Killybegh is situated a few miles south of Ardglass. It is not a new discovery, but its past history is contained in a mass of documents which do not appear to be particularly relevant to the Committee's present purpose.

Killybegh Harbour consists of a shallow tidal basin enclosed by a pier and quay which were built by the ancestors of the present Viscount Bangor, whose estate is held under an Act of Settlement Patent. It is protected to seaward by a series of natural breakwaters of rocks, which, however, are not so situated as to make navigation difficult or dangerous. The Department are advised that opportunities exist for bringing a water supply to the pier suitable for boilers of steam vessels.

The Scheme prepared by the Department's Engineers comprises the following works in addition to water supply:—

1. Erecting wharf on face of Killybegh Pier and repairing pier.
2. Deepening berth adjacent thereto.
3. Dredging channel from seaward into harbour to depth of 6 ft. at low water.
- 4 and 5. Retaining wall and filling at Conny Island.
- 6 and 7. Dredging berthing adjacent to this wall.

Borings were made to determine the feasibility of carrying out these works.

It was estimated that the works proposed as immediately necessary would cost about £13,000, and that the annual cost of maintenance and administration would be about £500.* The revenue derivable from a reasonable schedule of harbour dues and tolls was estimated at about £1,300, provided always that some arrangement could be come to with the Commissioners of Public Works in regard to Ardglass where as at other Royal Harbours, the income from dues, rents of sailing sites, &c., is nominal. The due would be partly derived from the export of potatoes.

The railway at Killough skirts the north-western side of the harbour, but the estimates given above do not include any additional works directly connected therewith.

Of course the estimates of cost are worthless now.

When the Killough scheme was first considered there was talk of the establishment by private enterprise of a cross-channel service to Holyhead or Fleetwood. Such a service, though mainly concerned with agricultural produce, would improve the facilities for "fishing" herring to English markets as the present local cross-channel outlets are not very satisfactory.

SUMMER HERRING FISHING, MAY TO OCTOBER.**

ARGLAUGH						HOWTH				
Year.	Tons Landed	Value £	Tons Cured.	Barrels No.	Tons Fished.	Tons Landed	Value £	Tons Cured.	Barrels No.	Tons Fished
1900	1,338	5,916	51½	360	1,389½	979	3,994	—	—	6,901
1901	2,878	13,144	1,341½	9,380	1,586½	3,163	11,246	49	300	2,120
1910	2,499	15,036	1,321	8,546	1,379	2,641	10,849	193	1,363	448
1911	2,619	15,897	1,424	99,67	1,525	2,689	14,635	1,123	7,661	1,066
1912	5,055	31,569	3,056	35,948	1,300	5,514	19,104	472½	3,307	2,361½
1913	4,097	37,324	3,214	22,560	798	3,049	19,043	1,320	8,538	1,829
1914	2,290	12,300	786	5,500	1,480	1,353	9,014	278½	1,950	1,074½
1915	2,915	37,380	873½	6,129	2,689½	2,988	40,051	431	3,018	1,867
1916	1,983	30,328	748	5,235	1,337	2,567	42,115	346	2,423	2,221

* The site affords ample scope for enlargement as may be found desirable hereafter.

** The landings shown for Howth during years 1906-10 include herrings landed during November.

NEWCASTLE

The south pier of the harbour, which belongs to the County Council was rebuilt about 1902 at a cost of £12,845. It had been ruinous since 1868. This is a tidal harbour and not too safe, especially for small boats in some weather conditions, and at present it is stated to be badly silted up. An attempt was made to develop a long, fine fishery out of large docked boats which was not seriously pursued. Then for a time the harbour was used by two small steam trawlers and a few sailing trawlers which account for the comparatively high return of fish in 1913. A few small boats have always fished plaice, turbot, and line fishing was pursued in very desultory fashion by "fishermen" more frequently engaged in gill-netting or quarrying. At present it seems to be carried on with much more energy on account of the high price of fish and the dearth of other occupation.

The Department have been repeatedly approached by the County Council and others to provide special accommodation in the harbour for small boats. The most feasible plan seemed to be to form a dock in the north-east corner by means of a pier and an inner breakwater, which might have cost about £4,000 in peace time. No justification for such expenditure is attended by any reasonable anticipation of fishery development.

ANNALONG.

This harbour is of more importance for commercial than for fishing purposes, but it is used by a genuine if not very numerous fishing community. The few large fishing boats follow the summer herring fishery and at other times are interned in the dock. Congestion here, which used to be considerable in winter, should be relieved by the provision of the basin in Killybegs, but the small boats which fish all the year round are apt to be impeded by the booms necessary to protect the larger craft from the run of the sea up harbour. A small opening at the upper end of the dock might remedy this at no great expense but might increase silage. Some provision for the safety of large craft approaching the dock entrance in bad weather is certainly most desirable. The outlet for fish is via Newcastle and Belfast, or with larger outgo Greenacres and Greenore.

The chief export trade is, I believe, in granite and potatoes, by schooner or small steamer.

KILKEEL.

The extension and improvement of Kilkeel Harbour which Mr. Le Fanu is bringing to a conclusion were commenced in 1914. The cost was estimated at £25,000, made up as follows: Development Commissioners £10,000, County Council £1,800, Department £1,300. Owing to the war and other causes the cost has been more than anticipated, and the Department are making up the deficiency which may amount to £2 out of their Sea Fisheries Income.

Although incomplete, the utility of the work has already been amply demonstrated. It would be all the better for a road outside the town to avoid the steep gradient, but negotiations on the subject came to grief over the Labourers' Cottage question.

Kilkeel as far as concerns herring is mainly concerned with curing on account of its distance from rail heads, viz.:—Newcastle, 14 miles; Warren Point, 10 miles, is not very well situated for "fishing," but in normal time, fish go well enough by cart to Greenacres, four miles, thence by ferry to Greenore, and so by steamer to England.

There is a less satisfactory cross-channel outlet from Belfast via Newcastle or (with longer cartage at Belfast) via Warren Point.

The herring season for large boats is May to August inclusive; skiff fishing goes on from September to Christmas, or even February.

GILES QUAY.

There is always a certain amount of fishing here by local open boats, and during the recent development of winter herring fishing (due to war prices) a number of other boats, chiefly from Clogher Head, landed their fish here. These boats use the beach, and not the quay. Last year the County Council applied to the Department to assist in providing better beaching accommodation and some shelter for it, but the matter never got as far as the preparation of a definite scheme and estimate.

DUNDALK.

There has always been a potential herring fishing in Dundalk Bay in the winter—December and January,—but in normal times it was practically neglected, as the herrings are generally of poor quality and fetch no price. War conditions made these fish valuable, and in the winter of 1916 a number of minor boats, chiefly from Portarogie, came to the fishery and proceeded to land their fish on the Dundalk quays, which are practically all private property. Disputes naturally arose between the quay owners, fishermen, and fish buyers. In the following year the Department induced the Harbour Commissioners to arrange with some of the quay owners to allow their quays to be used for landing fish and to fix dues with a view to financing this arrangement and also to providing for expenditure on dredging, which was necessary in anticipation of the fishing season. They also lent their dredger free of charge and guaranteed £100 towards cost of dredging if the dues should not cover all expenses. The fishing of the following winter 1916-17 was very successful, and the arrangements seem to have worked reasonably well, but the Commissioners swamped the dues in payment of officials.

Last winter, as the Balshingegan fishing (October and November) was a failure, no boats thought it worth while to go to Dundalk.

So far as I know the Commissioners have made no arrangements to meet the requirements of a fishery this winter.

There has been some informal discussion about the provision of accommodation for fishing boats at Soldiers' Point, where the Creek lends itself to the construction of the necessary wharfage. A line of light rails could be run along the embankment to railroad. Boats would gain about two hours on each tide at Soldiers' Point as compared with the quays up harbour.

It is, however, very doubtful whether Dundalk Bay herrings will be thought worth pursuing after the war, so I would not care at present to recommend any considerable expenditure on the Soldiers' Point scheme.

PORT-ORIEL, CLOGHER HEAD.

This harbour was built by the Board of Works and cost about £15,000. It is not suitable for present requirements, but could be made so by wharfing the entrance, dividing the dock by a shelter wall, providing quays and deepening throughout at a cost estimated before the war at £3,500. There is a considerable community of fishermen of the best type, who work in large open yaws. Although a few large boats have used the harbour at their considerable risk, its condition affords no possibility of the development of a regular deep-sea fishery, such as would certainly ensue if the accommodation were made suitable. Curing was started before the war, and no doubt will be resumed. The improvement of this harbour is considered by the Department to be of great importance.

BALSHINGEGAN.

The harbour is under the management of the Port and Docks Board. There was formerly a considerable fleet of large sailing trawlers here, and a great deal of line fishing in winter. Probably owing to the drain on the general resources of the Irish Sea by steam trawlers offshore both of these industries have been greatly reduced, and of late years trawling has given place to sailing in the case of the most modern boats in the port. The local boats take to herring fishing in its season, which begins about mid-October and are joined by a great fleet from other ports.

The harbour is always sanding up and no scheme to prevent this appears to be practicable. The sand has therefore to be cleared away from time to time either by dredging at high water or shovel work at low water.

Except during the herring fishing, when the port is crowded, the sailing does not interfere with the landing of fish, and the Department, who have always been willing to co-operate with the Port and Docks Board, endeavour so to arrange the visits of their dredger as to have the harbour clear when the fleet arrives, but it may well be impracticable for them to dredge the place for the convenience of cargo boats, and the Sea Fisheries Endowment is not available for contribution for such a purpose.

SKERRIES.

Skerries Bay is the only natural shelter from southerly gales on a long stretch of coast. It is close to the autumn herring grounds and in its present condition is used to some extent by fishing boats from other places, but in order to obtain the shelter of the little pier boats have to tie aground for several hours on each tide. The extension of the pier for 400 feet would afford a badly needed refuge for all craft trading on the coast side in all weathers with deep-water berths for fishing or trading vessels. Sites convenient for fish curing are at hand and it is extremely likely that if the proposed work were carried out Skerries would become an important fishing and curing station. The cost was estimated before the war at £25,000.

LOGHERSHINNY.

The Board of Works in 1888 rebuilt a portion of the old ruinous pier, and provided a boat slip and platform at a cost of about £3,000. Subsequently the pier was lengthened at a cost of £3,000, of which the Department paid half. It would be greatly improved by further extension and deepening works estimated before the war to cost £4,000. There is a considerable and industrious community of fishermen at the place.

ARLROW.

Arlrow Harbour was owned by the Wicklow Copper Mine Company prior to 1882, when it was transferred by them to the Commissioners of Public Works in consideration of a payment of £5,000.

The present Harbour Authority was constituted by the Arlrow Harbour Act of that year (45 Vic. c. 13) and the Harbour was handed over to them by the Commissioners on the completion of works of repair and improvement commented by the latter in 1883.

These works are referred to in Stationery Office Publications C. 4678, C. 4710 and C. 4775.

Their cost was defrayed in accordance with the Act by a Treasury grant of £15,000 and a loan of £30,000 (which loan included the £5,000 paid to the Wicklow Copper Mine Co.) to be charged on the baronies of Arlrow, Ballinacra South and Gorey. It was provided that any expenditure in excess of the above provision was to be charged on the town rates of Arlrow.

The Act provided that the Harbour Commissioners should be,

Appointed by the Treasury,
by each barony charged with part of the loan,
by the Town Commissioners of Arlrow.

Any surplus revenue was to be applied to recoupment of loan charges under the Act.

The ordinary shipping of Arlrow consisted of a local fleet of coasting schooners, steamers conveying materials for Messrs. Kynoch, Ltd., and a fleet of fishing vessels of which the larger are engaged at distant herring and mackerel fisheries return to Arlrow only in the off seasons. Cargoes intended for Arlrow had sometimes for the reasons indicated below to be landed or transhipped at Wicklow.

In 1904, when the Department of Agriculture first interested themselves in Arlrow, the entrance to the harbour was practically choked by two bars of sand, one between the pier heads, almost dry except at High Water of Spring Tides, and the other some 300 feet outside the end of the south pier, with a depth of 8 feet or less at low water.

This condition of the entrance was variable according to weather. Provision for dredging was limited to work carried out by Messrs. Kynoch, Ltd., for their own purposes with a small grab dredger.

Neither Messrs. Kynoch nor any other local industrial concern of importance had any representation on the Harbour Board.

By February, 1905, by means of grab dredging, a channel had been opened carrying from 6 to 9 feet at Low Water of Spring Tides for a width of about 70 feet.

The Department's suction dredger, which arrived in February, 1906, improved this to a channel over 100 feet wide with a depth of about 10 feet, and also attacked the outer bar. By August, 1906, there was a minimum depth of over 11 feet on the outer bar.

In 1907 a sum of £14,000 provided by the Government was entrusted to the Department for expenditure on extension works. Including dredging a total sum of over £10,000 was spent on the following works:

Excavation of a basin connected by a narrow entrance with the river. Area about 5 acres. Construction of over 1,000 feet of concrete quay walls, and formation and metalling 4,000 square yards of quay surface together with the necessary approach roadways, and a road drawbridge across the entrance to the basin, 318 feet of these quays have a depth of 12 feet of water, and 591 feet have a depth of 9 feet.

Deepening of river channel to over 9 feet at low water of Spring tides up to the entrance of the basin and cutting a channel of 12 feet and over through the outer bar.

Erection of hauling-up ship with steam machinery having a depth of 10 feet over the carriage at low water of Spring tides. Minor alterations of existing buildings, &c.

The Department entered into an agreement with the Harbour Commissioners, dated 31st December, 1907, for the construction of the works. This agreement provided that the Department would maintain for 10 years the dredged channel.

In 1912-13 the channel was deepened to 10 feet under an arrangement with Messrs. Kynoch, and in addition to maintenance dredging has been done at Messrs. Kynoch's wharves at their expense. In 1915-6 an extension of the basin at the S.E. corner was dredged at Messrs. Kynoch's expense, in compensation for quay space occupied by them at the western side, when they erected their ropeway across the river.

On the expiry of the agreement in 1917, the Department, in view of the importance of maintaining the outlet for Messrs. Kynoch's products during the war, consented to renew it for 13 months, so far as the maintenance of the channel is concerned, in a somewhat modified form.

In 1915, the Department came to the conclusion that in the special circumstances of the time, the perpetual menace to the channel caused by the mass of wreckage and derelict vessels which had been accumulating for generations upstream of the entrance to the basin must be taken in hand. This work has been carried on from time to time by the Department's dredger and a small tug belonging to their bucket dredging plant, fitted out with a salvage pump.

These works carried out since 1907 have been an undoubted success. The basin has provided safe berthing for vessels which not uncommonly broke £5 to £10 worth of mooring ropes in a night in the river, where there is a heavy run in bad weather in spite of works designed to mitigate it. Messrs. Kynoch have for some time been bringing their steamers into it.

The hauling up ship gives facilities for repairs of a kind which never existed before.

The fishing fleet owned in Arlrow has had 18 large auxiliary motor boats added to it since 1910, and a number of the original fleet have been equipped with motor engines. 13 of the former were built in Arlrow by Messrs. Tyrrell & Sons.

The existence of harbours accommodation at Arlrow, superior to anything of its size on the East Coast of Ireland, has been a determining factor in the great industrial development which has taken place there of recent years, bringing local expenditure of many thousands of pounds.

It is, therefore, all the more regrettable that the Harbour Commissioners as a public body, have not developed their position to any commensurate degree. (Individually they seem capable enough men of business.)

In the matter of administration the Commissioners have been continuously dependent on the Department for staff and services entirely outside the scope of the original agreement, in some cases through the negligence of their own staff.

E.g. In spite of repeated protests by the Department vessels have been allowed to lie at the quay over the slip while refitting, and the slip rails have been choked with ropes and other debris of this operation. Schooners have been allowed to lie on the slip for long periods without the cargo being moved or the wheels greased, and as a result the relaunching of the vessel has sometimes been accomplished only by the aid of the dredger's steam winches or after the Department have sent down a derrick to clear the rails.

In regard to finance the revenue raised during the ten years covered by the original agreement, even with the fortuitous increase of the last few years arising out of Messrs. Kynoch's expansion after meeting ordinary outgoings, has been insufficient to cover the cost of the dredging, and has contributed nothing to engineering advice provided by the Department, nor has any fund been accumulated for repairs to the Harbour structures, such as the Commissioners are faced with at present, or for the replacement of the slip machinery when worn out.

The tolls levied in the basin do not appear to be proportionate to the accommodation as compared with that in the river outside, or to give an expectation in normal circumstances of a fair return for the £14,000 expended on it. The dues on the slip favour its occupation for excessive periods, e.g., in 1912-13 two schooners occupied it for 280 and 182 days respectively, and the latter paid £18 9s. 7d in dues. In 1916 a schooner on the slip for 114 days paid £32 6s. 9d. in dues. During these periods the slip has not been available for any other service.

Arklow is, perhaps the best case that could possibly be chosen to illustrate the importance of some centralised control of the management and finance of our minor harbours.

COURTOWN.

The harbour was constructed in 1824 at a cost of about £10,000, half of which was contributed by Lord Courtown and others. It was vested in Commissioners, but transferred to the Wexford County Council in 1905. There is a considerable fishing community, chiefly engaged in trawling, except during the autumn and winter herring fishing. Their boats are built at the harbour.

The work consists of a dock and two piers, and a special arrangement for sluicing the harbour mouth, which was intended to obviate the difficulty arising from the fact that the rise and fall of spring tides is only 3 feet. There is consequently no natural scour, and the sluicing system at its best is inefficient because the area for water storage is too small. The Department has already carried out minor works of improvement, viz., clearing the entrance and reconstructing the dock entrance and sluices at a cost of £1,285, to which the County Council contributed £494, and the Development Commissioners £239, the remainder, £492, being found from the Sea Fisheries Redoubment, but the condition of the harbour remains unsatisfactory and prohibitive of any considerable development of fishing.

COURTOWN.

In 1913 the County Council laid before the Development Commissioners a scheme estimated to cost £18,498 for extending the South Pier and constructing an island breakwater north-east of the present entrance, the idea being, apart from more shelter to prevent silting and allow schooners and small steamers to discharge alongside the new quay where it was claimed that a depth of 8 feet could be maintained. The Department to whom the matter was referred were unable to share these anticipations or to agree as to the estimate, which appeared to them very much under the mark, but they were prepared to ask the Development Commissioners to finance a much more modest scheme, including the provision of sluices to improve the scour and a crane (mounted on a staging carried out beyond the pier as a jetty) to be used in dealing the entrance. This was estimated to cost about £1,500 but provision for the working of the crane would have to be made by the County Council. The matter should certainly be taken up again when the financial situation renders it possible.

BLACKWATER

The place marked Blackwater Harbour on maps and charts is really a sandy beach, at the mouth of the Blackwater stream, with no sort of shelter except from the west. In spite of the difficulty of launching and beaching boats through more or less surf a lot of herring fishing seems to have been done there about 40 years ago. Afterwards herring took off for a number of years, but there have been plenty about for the last 20 years, but the beaching conditions seem to be even worse than formerly owing to a diversion of the stream.

Having been approached by the County Council, the Department prepared a scheme, the only one that seemed to them practicable, for a jetty consisting of a timber platform carried on concrete piers or blocks at intervals with timber supports spaced 10 feet apart between them and a winch for hauling up boats. The cost of the jetty was provisionally estimated in 1912 at £3,383. The local people favoured a more ambitious scheme with a dock to be secured by sluice work as at Courtown, where, under much more favourable natural conditions, scouring is quite ineffective. Neither project came to anything, as the County Council were not prepared to spend more than £1,000 and the balance was not available. The Department had previously offered £350, half the estimated cost of a landing stage, but the offer was rejected. They did in fact provide the winch.

SLADE

A small tidal harbour just east of Hook Head. The swell used to sweep right round the harbour so that only small boats which could be drawn up on the beach could be used. In 1903 a sheltered inner harbour was provided by means of overlapping piers from either side and the place appears to be now safe enough for boats of moderate size. The work cost £214, including £107 from the Sea Fisheries Redoubment. It is used for merchandise as well as for fishing.

FETHARD.

The Harbour is a small square tidal dock, too small, unsheltered, and with a very shallow approach. Such as it is, it is used by an industrious small colony of fishermen, and, if improved, would no doubt attract men of the fishing class from the adjacent creeks. A full scheme of improvement and extension was estimated before the war to cost about £7,000. This included a deep water pier (£3,325) which, if no other work was carried out, would be a very material improvement.

BALLYHACK.

This is a fishing village in Waterford Harbour near Arishinstown. The Harbour, which belonged to the Waterford Harbour Board, was unsatisfactory, but of no interest to the Board. It was accordingly taken over by the County Council and the necessary work was carried out by the Department and completed in 1916. Cost, £1,131 16s. 10d. County Council, £450; Development Grant, £510; Sea Fisheries Endowment, £174 16s. 10d.

HELVICK, BALLISAGOWL AND DUNGARVAN.

There is a considerable community of fishermen at Ballisagowl, but the tidal harbour there, which fills up as fast as it can be dredged, admits of no possibility of fishery developments on modern lines.

Dungarvan is at the head of the Bay, approached by a channel at present impracticable for boats of any size at low water and impassable by any craft in bad weather. Helvick lies at the mouth of the Bay and affords some natural shelter for boats driven in from the open sea or waiting for tide up to Dungarvan. It is the nearest point to the best part of the herring grounds now worked from Deunmore Reef, and there are good trawling and fishing grounds off it.

In view of these considerations the Department, when money became available from the Development Commissioners, prepared a scheme for a non-tidal harbour at Helvick for which due provision was made. The whole scheme includes the provision of a proper channel to Dungarvan. The original estimate for the Harbour was £31,000, made up as follows:—Development Commissioners, £12,000; County Council, £2,000. Circumstances have greatly increased the cost, which may amount to £37,000 or more before it is finished, and the great rise in all costs may make it impossible to provide for the channel to Dungarvan out of a sum of about £4,500 which remains available for the purpose out of the original sum of £50,000 allotted by the Development Commissioners for the marine purposes of the Department in 1915.

KINSALE.

Kinsale suffers from a very heavy Harbour debt and from the absence of a proper water supply. The berths of the pier is also unsatisfactory owing to a lock projecting in front of the pier head. The cost of clearing this away was estimated before the war at £2,500. Whether the prospects of business would justify such an expenditure I cannot say.

There is a large colony of deep sea fishermen at Kinsale, the fishing industry of which received great encouragement from the discovery there, early in the sixties, of the Spring Mackerel fishery. At the present moment no great fishing is being prosecuted as every able bodied fisherman is on naval service.

COURTMACHERRY.

Except for the bar at Wood Point, which is dangerous in strong easterly winds, the facilities for landing fish and keeping fairly large fishing boats are ample here, and the railway runs to the quay. Fishing, however, is restricted to very leisurely trawling by two or three small decked boats, some salmon and mollet fishing in the river, and a certain amount of semi-pleasure fishing for pollack, which are salted down for home consumption. In the days when hake abounded along the South Coast in the autumn, the local farmers regularly fished them for winter consumption. The Department, in order to remedy alleged difficulties in the way of fishing, put up a Wigham light at the mouth of the river, and buoyed the channel, and pay an annual sum to the County Council for maintenance of light and buoy, but no development of fishing has followed. The place, in fact, illustrates the difficulty in promoting fishing energy at the place where there is no existing fishing community.

KIRKUBB.

The Urban District of Kfirrubb is not a Congested District. In 1915 the Urban District Council approached the Department as to dredging Cappe Harbour, which it was made clear to them that the Department could only do the dredging if the Council were willing to pay at least two thirds of the cost, the matter dropped.

(c) NOTES ON ACCOMMODATION FOR FISHING BOATS AT PLACES NOT ELSEWHERE MENTIONED IN EVIDENCE.

MYROR.

In Lough Foyle, on the Derry side, the three local boats are accommodated in the River Roe, tied up to the bank. The railway bridge over the river forms a boat house for one of the boats. In ordinary, during fishing season, boats are anchored in Lough Foyle opposite river.

BELLARENA.

The post town for the fishermen of Lenamore and Drumavally-Magilligan Point.

No harbour accommodation, and only an anchorage available in Lough Foyle for about six months of the year. The boats are laid up in Portstewart during winter months, as anchorage dangerous as a result of ice floating down stream.

During winter months local fishermen are employed wildfowling. Remainder of year engaged solely in trawling.

CASTLENOCK.

The fishing boats are hauled up at mouth of River Bann on to the river bank.

PORTSTEWART.

Good harbour accommodation for existing local fleet, but dangerous approach during a swell. During storms big run inside harbour, and boats are generally hauled up on existing slipway out of danger. Slipway good, and plenty of space for hauling up boats.

PORTALLINTEAR.

Small creek forming a sort of harbour at east side of bay. Boats are always hauled up. Some concrete work in shape of slip and landing place for small boats built on this creek.

CAUSEWAY.

Boats are drawn up on beach at Causeway and Portmagee.

PORT BRADDAN.

Concrete built landing place connected with the salmon fishery. Boats are drawn up on beach.

TORR HEAD.

Beach at end of horseshoe-shaped inlet under Lloyds' Signal Station whereon boats are drawn up.

CUSHENDUN.

Landing quay built alongside stream at south side of bay where boats can lay alongside. Boats hauled up during swell.

CUSHENDALL.

Boats drawn up on bank of river at Cushendall. Small harbour at Waterfoot not much used by fishermen, as boats are drawn up on beach at mouth of Waterfoot River.

CARNLOUGH.

Small, safe, substantially-built harbour, leased to Carnlough Lame Company by owner. Good accommodation for the few local boats.

GLENARM.

Existing harbour privately owned and used for exporting limestone. Fishing boats are, however, drawn up alongside fishermen's dwellings between Glenarm and Cairncastle on coast road.

LARNE.

Berthing area of harbour owned by Larne Co., Ltd. Anchorage for fishing boats to west of main pier, in a basin bordered by beach on which boats are drawn up. Landing and discharging facilities exist.

PORTMUCK.

Small built harbour on east side of Islandmagee, opposite Isle of Muck. Sheltered, and beach for boats to be drawn up.

Various beaches on east side of Islandmagee, as at Brown's Bay, where boats are drawn up.

WHITERHEAD.

Small concrete pier or landing-place beside beach where boats are drawn up. Property of railway company (N.C.M. Ry.) During winter of 1916-17 foreshore got seriously damaged by storms. Only fit for small boats.

CARRICKFERGUS.

Good harbour, and landing pier and slipway for fishing boats. Suitable for fair size boats.

GROOMSPOND.

Concrete pier and parapet sheltering an inner basin and beach where boats can lie or be hauled up. Usually hauled up. Dangerous approach and only accessible at half to full tide.

DONAGHADEE.

Royal Harbour, a big run when swell outside. Occasionally used by local boats, but principal haven for local fishing boats exists to the southward of the main harbour in the form of a walled-in basin very deep in centre, and originally the quarry from which the Donaghadee harbour was built. Approach to this basin dangerous to other than local men, and only accessible at half to full tide. Inside safe in all weathers.

BALLYWATKES.

Built pier making sheltered inner tidal basin. Slipway beside Coastguard Station on which boats are drawn up.

BALLYHALBERT.

Small harbour built at Birr Point, a mile from Ballyhalbert South. Silted up badly, and wreckage of old ships at head of harbour on which fishing boats are liable to get damaged.

Good landing on pier, and also beach where boats are drawn up. Tidal.

CLOOHY.

No harbour; boats drawn up on beach.

PORTAFFERY.

Concrete landing piers jutting out from beach where boats are drawn up. Pier exists where cargoes of potatoes can be shipped from and coal imported.

KIBBOURNE.

(In Strangford Lough.) Built harbour, tidal, in bad state of repair, undergoing improvements. Beach at inner end where boats are drawn up.

STRANGFORD.

Owned by Lord de Ros. Concrete landing place and slip, and beach on which boats are drawn up, also quay space where large boats may lie comfortably.

DUNDURUM.

Harbour owned by Lord Downshire, leased to East Downshire Company. Tidal necessitating continuous dredging of approach. Fishing boats are drawn up. Good landing for cargo boats on quays, which are fitted with railway lines, being convenient to B. & D. Rly.

GREENCASTLE.

Inside Carlingford Lough beside Cranfield Point. Wooden landing stage for L. & N. Railway ferry steamer from Greenore opposite.

Fishing boats anchor off beach, or are drawn up.

WARRENPOINT.

Two piers running at right angles to beach form a commercial harbour for export and import. Local boats are small and drawn up on beach alongside.

Large fishing boats from Killybeg use Warrenpoint as harbour of refuge in bad weather.

CARLINGFORD.

Built tidal harbour, giving sufficient facilities for local fishing boats.

WHITESTOWN (Bellagun Point).

Boats are open and drawn up on beach.

RATHCOR (West of Cosley Point).

Boats are drawn up on beach.

RANPARK (West of Oller's Quay).

In Dundalk Bay. The two local trawlers are anchored off the beach; small boats are drawn up alongside of slip built of cobble stones by local fishermen.

BLACKROCK (Dundalk).

A wide strand abutting for over a mile. At high water boats are drawn up above high-water mark in cuttings on shore along roadside. A small stream has cut a fairway in strand of south and beside Lurgan Green, where boats are also drawn up.

BALTRY.

A built-up landing pier exists for the local fleet of salmon and mussel boats. Boats are drawn up.

RUSH.

Built harbour, used for landing fish. Boats usually lie up between muddy banks of river, in preference to the harbour.

BRIAY.

Small commercial harbour, not used by fishermen. Landing-slip at southern end of beach at which fish are landed and boats drawn up.

GREYSTONE.

Pier and breakwater ruins, but afford shelter to the slip used by local boats. There is also a convenient beach for drawing up boats.

KILNICKHALE.

A natural indent in coast, forming a creek with sloping beach, where boats are drawn up.

CURRACLOE.

A concrete landing slip runs out from strand at which boats can discharge and be drawn up alongside by means of a hand winch to beyond high-water mark.

DOSSLAKE

Good sheltered anchorage in basin inside main harbour works. In normal times used as a base of operations by large trawling trawlers from Brixham. Small boats are usually beached.

BAR LOUGH, DUNCOMMICH

Good shelter in the Lough. Boats hauled up to southern beach.

PASSAGE EAST

Good harbour.

DUNCANNON.

Pier and landing place.

DUNABRAITH.

Good tidal harbour for small boats.

YOUNGHAL.

Small harbour formed by two piers, making small inside basin in which fishing boats lie in shelter. Considerable quay space elsewhere; tidal; anchorage to west of harbour.

BALLYCOTTIN.

Non-tidal harbour, affording sufficient shelter to fishing boats and good landing facilities.

RATHCOURSEY.

This is the place where Queenstown fishing boats are kept. It is a sheltered place on the Middleton channel.

CROSSHAVEN.

Good landing pier for fishing boats and sheltered anchorage.

OYSTER HAVEN.

Small landing jetty. Boats generally drawn up

OLD HEAD.

Boats are drawn up.

ROSCARRERY.

Pier and considerable shelter for small boats.

(f) PARTICULARS CONCERNING THE DIFFERENT HERRING FISHERIES AROUND IRELAND.

EARLY SUMMER HERRING FISHERY—NORTH COAST.

EXTENT OF SEASON FROM 1ST MAY TO MIDDLE OF JULY.

Principal ports in geographical sequence: Killybegs, Burtisport, Inishboffin (Tory Island), Downings and Buncrana.

The approximate positions of the fishing grounds fixed are:—

KILLYBEGS.

Within Donagh Bay, from four miles west of St. John's Point to the vicinity of Inishmurray and Mallegishmore Head, extending to Teelin Head. An inshore fishery.

BURTISPORT.

Principally off the Bloody Foreland, and extending from north of Arranmore to Tory Island within ten miles of the coast line. Both inshore and offshore.

INISHBOFFIN (Tory Island).

Tory Island grounds, within Tory Sound principally. An inshore fishery.

DOWNINGS.

Within Mulroy Bay and Sheep Haven inshore and off shore for ten to twelve miles from coastline between Tory Island and Fanad Head.

BUNCRAHA.

Off the mouth of Lough Swilly is an area extending from Fanad Head to Inishtrahull. Offshore to twenty-five miles.

PARTICULARS OF BOATS ENGAGED IN SEASON 1913.

KILTERRA.

1 Moray Firth steam drifter, 2 local motor boats, 5 Tootin sail boats.

BURTONPORT.

1 local motor boat, 8 Bunbeg sail boats.

INISHOWEN (Tory Island).

70 local open boats.

DOWNINGS.

37 Moray Firth steam drifters, 5 local motor boats, 10 local open and 8 local sail boats.

BUNCRANA.

65 Moray Firth steam drifters, 3 Scotch motor boats.

Landings shown in comparative statement at end.

Extent of season—From 1st May to 31st October.

Principal ports in geographical sequence—Portavogie, Ardglass, Annalong, Killybegs, Clogherhead, Howth.

The fishing grounds are shown on accompanying map, and the approximate position of same are: From the South Ship to Lambay Island and the Isle of Man to the eastern limit.

Portavogie boats work mainly from Ardglass on grounds from the South Ship to seven to twenty-seven miles south and south-east from Ardglass, extending on to the track of the Greenore-Holyhead steamers.

Annalong grounds are those for Ardglass.

Killybegs boats work south of St. John's Point from seven to fourteen miles south to south-east from Killybegs and to abreast of Clogherhead.

Clogherhead has no fleet, but is a landing place for Killybegs boats (with various winds) when fishing off Clogherhead.

Howth grounds are approximately from Lambay and Rockabill north-east to the Calf of Man.

Ardglass - - - 36 Scotch steam drifters, 27 Portavogie motor boats

Annalong - - - 6 local sail boats

Killybegs - - - 3 local motor boats, 27 local sail boats

Clogherhead - - - 1 local sail boat, and 10 Killybegs sail boats.

Howth - - - 11 Scotch and English steam drifters, 35 motor boats,

(local) and Arklow 12 local and Arklow sail boats.

The individual boats at Ardglass in 1912 season numbered 300, comprising—

Irish - - - 2 steam drifters, 128 motor and small boats

Scotch - - - 31 " 3 motor, 11 sailing boats

English - - - 1 " 10 " 6 "

Manx - - - 2 " - 6 "

Landings shown in comparative statement at end.

EARLY SUMMER HERRING FISHERY—DUNMORE EAST.

Extent of Season—April to middle of June.

Principal Ports—Dunmore East, Dungarvan.

Fishing Grounds—See Map. Approximate position of grounds are within twelve miles of the coast line between Carnage Point to Mids Head in vicinity of the Coningbeg Lightship. Inshore and offshore.

PARTICULARS OF BOATS ENGAGED IN SEASON, 1912.

Dunmore East—2 Moray Firth steam drifters, 4 Arklow motor boats.

Dungarvan—About 6 Helwick sail boats do.

Landings shown in comparative statement at end.

WINTER HERRING FISHERY.

North Coast—Season: November to March.

Principal Ports—Killybegs, Burtonport, Downings, Buncrana and Londonderry.

Fishings grounds are the same as for the early summer herring fishing on this coast, except that about February fish are got to the eastward of Inishtrahull by boats working from Londonderry. Mainly an offshore fishery.

PARTICULARS OF BOATS WORKING IN 1913 SHANON.

Killybegs	No Steam Drifters.	No Motor Boats.	14 sailing boats, Irish.
Burtonport	3 do.	6 do.	15 row boats, inshore.
Downings	98 do.	12 do.	32 sailing boats
Buncrana	139 do.	8 do.	—
Londonderry	67 do.	1 do.	—

East Coast—Inshore fishing between St. John's Point and Howth.

All local partially decked and undecked boats engaged.

Fishing grounds within three miles of the coast line.

South-East Coast—Dunmore East—Eastport.

Fishing grounds as for early summer fishery, but more inshore. 16 steam drifters employed and 8 Arklow motor boats.

EARLY SUMMER HERRING FISHERY OF 1912.

Season—April to June <i>South-east Coast Landings.</i>			Season—May to July. <i>North Coast Landings.</i>		
Port.	Cwts.		Port.	Cwts.	
Dunmore East	1,547	Freshed.	Killybegs	1,991	Half cured matjes, half freshed
Dungarvan	1,106	Freshed.	Burtonport	945	Do. do.
			Inishlavin	5,806	Mostly cured as matjes.
			Downings	529	Do.
			Buncrana	4,481	Do.
Total landings	2,653	cwts.		32,343	cwts.

SUMMER HERRING FISHERY OF 1912.

East Coast—May to October.

Port.	Landings.	How disposed.
Portlaoige	9,285 cwts	All freshed.
Ardfglass	101,098 "	Three fourths hard cured, remainder freshed.
Annalong	589 "	One half hard cured, remainder freshed.
Kilkeel	55,960 "	One-fourth hard cured, remainder freshed.
Clagher Head	1,309 "	All freshed.
Roath	57,076 "	One-fifth hard cured, portion kippered, remainder freshed.
Total landings	306,179 cwts.	

WINTER HERRING FISHERY OF 1912.

<i>North Coast.</i> Season—November to March. Cwts.			<i>East Coast.</i> November to March. Cwts.		
Killybegs	2,815	All freshed.	Kilkeel	4,406	All freshed.
Burtonport	7,426	Half hard cured, half freshed.	Dundalk	7,592	Do.
Downings	50,689	Mostly hard cured.	Blackrock	11,649	Do.
Buncrana	92,887	Mostly hard cured.	Annagasson	3,582	Do.
Londonderry	31,002	Half hard cured, half freshed.	Clagher Road	2,481	Do.
	154,519 cwts.		Ballybragan	4,262	Do.
			Skerrin	2,590	Do.
				36,564 cwts.	

South-east Coast. November to March.

Rosslare	1,199 cwts	All freshed.
Dunmore East	1,221 "	Do.
	2,420 cwts.	

HERRING FISHERY OF 1912.

Early Summer—Season April to July.

North coast	23,242	Cwts.
South-east coast	2,653	
Total	24,895	

Summer—Season May to October.

East coast	306,179	Cwts.
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Winter—Season November to March.

North coast	154,519	Cwts.
East coast	36,564	
South-east coast	2,410	
Total	193,493	

(g) STATEMENT SHOWING QUANTITY OF FISH (OTHER THAN SALMON AND SCOLL FISH) LANDED AT CERTAIN STATIONS ON IRISH COAST DURING YEARS 1913 AND 1917.

Station.	1913.				1917.			
	Herrings.	Mackerel.	Other Sea Fish.	Total.	Herrings.	Mackerel.	Other Sea Fish.	Total.
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
Mellaghmore	206	802	860	2,868	2,560	225	996	3,781
Lever	—	40	617	657	40	75	269	384
Tribes	—	—	2,692	2,692	245	476	1,548	2,269
Killybegs	2,790	374	633	3,797	5,790	308	—	6,098
Teelin	112	190	267	5,229	3,374	84	40	3,498
Inishbofin	2,245	96	1,265	3,705	2,048	300	81	2,429
Buncrana	89,645	2,526	3,603	96,064	146	—	401	547
Malinbeg	1	7	1,061	1,069	3	—	453	456
Londonderry	21,008	170	809	21,987	—	—	—	—
Portlaoise	—	—	1,071	1,071	—	—	2,080	2,080
Portlaoise	—	—	375	375	—	—	409	409
Portlaoise	4,523	—	141	4,664	5,264	32	294	5,590
Newcastle	23	9	1,084	1,086	15	8	819	842
Dundalk	4,295	144	11	4,450	999	228	—	1,227
Blackrock	4,321	—	448	4,769	104	—	80	184
Amagasson	3,245	—	—	3,245	508	25	25	558
Balbriggan	1,771	4	828	2,603	3,220	45	417	3,682
Skerrin	1,078	102	668	1,848	202	22	58	282
Loughshinney	916	—	266	1,182	802	30	1,415	2,047
Ensh	348	8	124	477	705	58	120	941
Howth	64,844	2,261	3,500	71,605	32,907	534	3,710	37,151
Ringend	120	39	35,419	35,578	129	7	28,146	28,282
Kingsdown	87	116	3,003	3,176	28	6	1,471	1,505
Arklow	3,166	—	706	4,292	18	—	367	385
Courtown	1,112	—	247	1,359	151	—	315	466
Wexford	682	—	267	1,449	298	—	41	346
Passage East	25	—	1,022	1,047	—	501	6	507
Dunmore E.	4,270	341	111	5,222	37,041	785	6	42,832
Helwick Head	1,270	194	960	2,324	1,681	970	1,861	4,512
Ballyvaughan	2,370	374	342	3,086	1,380	44	228	1,652
Upper Cove	1,663	9,887	76	11,626	6,248	6,474	436	13,158
Upper Hall	517	3,133	558	4,208	175	3,892	786	4,853
Baltimore	1,274	15,503	168	17,045	1,064	71,975	28	73,067
Skill	274	8,077	804	9,155	5,127	706	23	5,856
Bantry	2,254	328	883	3,465	3,706	3,706	944	8,356
Disco	40	6,506	8,407	15,013	984	8,296	1,643	10,923
Seaford	—	768	00	768	742	1,571	78	2,391
South Area	43	3	1,299	1,345	89	—	1,287	1,376
North Area	2,654	3,374	738	6,766	3,600	12,536	2,673	18,814
Galway	3,719	938	3,331	8,008	1,562	613	1,070	3,245
Castello Bay	55	—	769	824	—	—	630	685
Roundstone	14	1,048	205	1,267	223	7,336	222	8,081
Blackrock Point	633	469	93	1,195	—	—	558	558
Belmullet	32	149	97	278	—	—	—	—

(k).—Total quantities of fish of all kinds landed at Irish harbours in the twelve years 1905 to 1916 (both inclusive).

Year.	Total	Mackerel	Herrings	Other fish except Shell Fish	Shell Fish
1905	cwts. 1,149,701	cwts. 306,184	cwts. 324,144	cwts. 138,898	cwts. 161,486
1906	692,928	306,873	210,437	134,171	115,487
1907	808,080	272,473	206,210	136,118	111,289
1908	861,543	266,085	260,287	140,744	117,487
1909	1,103,032	30,734	517,282	145,097	108,969
1910	1,137,890	265,802	550,580	124,969	96,289
1911	1,076,378	210,221	602,553	126,610	80,880
1912	981,014	289,563	472,708	128,872	80,870
1913	764,378	100,439	436,830,839	56,313	87,886
1914	666,382	214,365	293,508	50,425	76,073
1915	636,061	134,618	302,973	68,608	45,867
1916	684,341	196,808	298,021	71,313	68,704

(1)—STATEMENT showing particulars of fishing boats in use on the north east and south coasts of Inland from Londonderry to Rosaberry, Co. Cork.

Home Port or Creek.	No. of Decked Motor Boats.	No. of Partially or Half Decked Motor Boats.	No. of Undecked Motor Boats.	No. of Decked Sail Boats.	No. of Half Decked Sail Boats.	No. of Undecked Sail or Row Boats.	Total No. of Boats.
Londonderry	1	—	—	—	—	—	1
Myroe	1	—	—	2	—	—	3
Bellarena	3	—	—	2	—	—	5
Castlerock	—	—	1	—	—	—	1
Portlaoiseart	3	9	1	3	—	6	21
Portlough	—	5	1	—	—	6	12
Portloughmore	—	1	1	—	—	5	7
Quoseway	—	—	—	—	—	6	6
Dunseverick	—	2	1	—	—	10	13
Pect Braddan	—	—	—	—	—	3	3
Ballintoy	—	—	—	—	—	6	7
Ballycastle	—	2	—	—	—	3	5
Ratalla Island	—	1	—	—	—	10	11
Torr Head	—	—	—	—	—	4	4
Cashenden	—	1	—	—	—	3	4
Cashendall	—	1	1	—	—	19	12
Carlingagh	—	1	1	—	—	2	4
Glenasmole	—	1	—	—	—	3	4
Larne	—	9	4	—	—	6	21
Portlough	—	2	2	—	—	10	14
Whiteland	—	5	—	—	—	8	13
Caerthfargus	1	—	—	1	—	3	5
Belfast	—	—	1	—	—	2	6
Bangor	—	12	—	—	3	2	17
Quosepoint	—	7	—	—	—	7	14
Dunaghadra	1	5	—	—	—	4	10
Ballywalter	—	3	—	—	—	4	7
Ballyvaughan	—	2	—	—	—	10	14
Portlough	30	4	—	—	3	13	50
Cloghy	—	—	—	—	—	4	4
Portlough	—	1	—	—	—	6	7
Kilnabreena	—	2	—	—	—	19	21
Strangford	—	—	—	—	—	12	12
Armagh	6	1	—	1	—	6	14
Killough	1	—	—	—	—	6	7
Dundrum	—	—	—	—	—	4	4
Newcastle	—	2	—	3	—	16	20
Amalgam	—	3	1	3	4	11	22
Killybeg	11	11	3	17	8	65	115
Greenacres	—	1	—	—	—	10	11
Warrenpoint	—	3	—	—	—	7	10
Castlingford	—	1	—	2	—	8	8
Whiteland	—	—	—	—	—	4	4
Bothome (Cooly Pt.)	—	—	—	—	—	6	6
Glen Quay	—	—	—	—	—	7	7
Don Park	—	—	—	—	2	2	4
Dundalk	—	12	—	—	2	4	16
Blackrock	—	5	1	—	3	9	15
Annagassan	1	1	—	—	—	10	12
Clogher Head	—	—	—	1	—	14	15
Ballyvaughan (Boynes)	—	—	—	—	—	45	45
Ballyvaughan	5	—	—	4	2	4	15
Skerris	4	1	—	2	2	9	11
Loughmurry	—	1	—	—	1	10	12
Bank	—	—	—	1	3	3	7
Howth	6	5	—	6	—	4	21
Kingend (Dobbin)	7	3	—	5	—	4	19
Kingstown	—	1	—	—	—	11	12
Bray	—	—	—	—	—	9	9
Greystones	—	—	1	—	—	4	5
Wicklow	—	1	—	—	—	6	7
Arklow	38	1	—	6	14	6	59
Kilnabreena	—	—	—	—	—	1	1
Cartoon	—	1	—	—	6	4	11
Carragee	—	—	—	—	—	16	14
Wexford	—	2	—	3	5	7	19
Rossmore	1	9	—	1	1	6	11
Carnore	—	—	—	—	—	5	5
Kilmore	1	1	—	—	3	7	12
Fethard	—	1	—	1	1	4	7
Arthurs town and Ballyhack	—	2	—	—	6	6	16
Passage East	1	—	—	1	1	4	7
Dunmore East	—	2	—	2	4	2	10
Tramore	—	—	—	—	1	2	3
Dunabettla	—	—	—	—	6	4	10
Ballyvaughan	—	—	—	4	4	3	11

STATEMENT (I).—Contd.

Home Port or Creek	No. of Decked Motor Boats.	No. of Partially or Half Decked Motor Boats.	No. of Undecked Motor Boats.	No. of Decked Sail Boats.	No. of Half Decked Sail Boats.	No. of Undecked Sail or Row Boats.	Total No. of Boats.
Dungseva	—	—	—	1	1	2	4
Beltrick Head	1	2	—	2	7	4	16
Ardarae	1	—	—	—	—	4	5
Youghal	1	3	—	—	3	3	12
Ballyvaughan	1	—	—	1	3	4	8
Rathcorney	—	—	—	4	4	3	11
Crosshaven	—	—	—	—	2	7	9
Oyster Haven	—	—	—	—	—	2	2
Kinsale	3	1	—	3	14	9	30
Old Head	—	—	—	—	1	2	3
Courtmacsherry	—	—	—	—	1	7	8
Galley Head	—	—	—	—	—	7	7
Rossmore	—	—	—	—	1	12	13

(j) Statements as to Dredging Plant, etc., compiled by Mr. A. HARRARD, M.A.I., Fisheries Branch, Department of Agriculture and Technical Instruction for Ireland.

SUMMARY OF THE DREDGING PLANT AVAILABLE FOR USE AT IRISH PORTS.

NOTE.—No County Council owns any dredging plant.

Dredgers and barges not self-propelled unless so described.

Dredgers have no hoppers unless described as hopper dredgers.

Output of dredgers must be taken as approximate only—it would vary greatly according to the material dredged, etc.

Hopper barges have self-emptying hoppers.

The distinction between targe, boat and scow cannot be relied upon.

LONDONDERRY.

1 Bucket hopper dredger, self-propelled.

Output 400 tons per hour.

1 Barge carrying a prestresser grab.

Plant employed 6 to 8 months per annum.

CARNLOUGH.

1 Bucket Dredger.

1 Tug.

1 Hopper Barge.

Plant employed 3 to 4 months in the year.

BELFAST.

1 Bucket hopper dredger, self-propelled.

Output 400 to 450 tons per hour.

2 Grab hooker dredgers.

2 Tugs.

62 Scows.

Plant employed all the year.

DUNDURN BAY.

1 Grab hopper dredger, self-propelled.

Output 30 tons per hour.

6 Barges and Boats.

Plant intermittently employed all the year as necessity requires.

DUNDALK.

1 Bucket dredger, self-propelled.

Output 300 tons per hour.

1 Tug.

6 Hopper barges, 4 of 250 tons, 2 of 150 tons capacity.

Plant employed 5 months in the year.

DUBLIN.

1 Section hopper dredger, self-propelled.

Actual output 1,200 tons per day.

2 Section dredgers.

Actual output 2,000 and 180 tons per day.

2 Bucket dredgers.

Actual output 800 tons per day.

2 Tugs.

2 Hopper barges, self-propelled, 900 tons capacity.

6 Hopper barges, 3 of 1,000 tons, 2 of 275 tons, 1 of 225 tons capacity.

Plant is used all the year round.

WATERFORD.

- 1 Grab hopper dredger, self propelled.
Output 120 tons per hour, stiff mud.
Employed all the year round.

COBK.

- 1 Bucket Dredger, self propelled.
Output 360 to 400 tons per hour.
- 1 Grab Hopper Dredger, self propelled.
Fitted with a 16 ft. sand pump.
Output with grab - - - 90 tons per hour.
" " sand pump - - - 300 " "
- 1 Grab Hopper Dredger, self propelled.
Output 90 tons per hour.

1 Service Launch.

2 Hopper Barges, self propelled, 1,200 tons capacity.

9 Barges—Some fitted with steam or hand cranes, piling gear, etc., etc.

When improvement works are in progress all the plant is worked; when not required it is hired out.

FENTR.

- 1 Grab Hopper Dredger, self propelled.
Output 300 tons per day.
Employed all the year, but now on Charter to the Admiralty.

LEMERICK.

- 1 Bucket hopper dredger, self propelled.
Output 300 tons per hour.

WESTPORT.

- 1 Grab hopper dredger, self propelled.
Output 50 tons in mud.
Employed 1912, 7 months; 1914 7 months.
Now laid up owing to shortage of funds, and Commissioner's wish to sell it.

KILLALA.

- 1 small steam launch.
- 1 barge or float—capacity 140 tons
Employed about 10 months in the year.

COMMISSIONERS OF PUBLIC WORKS.

- 1 Bucket hopper dredger, self propelled.
- 1 Grab hopper dredger, self propelled.
Fitted with rock-breaking ram.
Plant employed in the Royal harbours, and occasionally hired out.

DEPARTMENT OF AGRICULTURE.

- 1 Suction hopper dredger, self propelled.
Actual output up to 2,000 tons per day if in suitable sand, as at Arklow or Portrush.
- 1 Buckee dredger.
Output 200 tons per hour in suitable material.
- 1 Tug.
- 2 Hopper barges 150 tons capacity.
Tug and barges now on Charter to the Admiralty.
The two dredgers are seldom in commission at the same time.

LOUGH NEAGH DRAINAGE TRUSTEES.

- 1 Side bucket dredger.
- 3 Barges.

UPPER BAWN NAVIGATION TRUST.

- 1 Grab barge.
- 3 Floats.
Employed about 3 months in the year.

THE LAGAN NAVIGATION CO.

- 1 Bucket Dredger.
- 1 Tug.
Employed as required—sometimes not used for months.

LARNE

1 Small Grab Dredger.

Employed keeping berthings clear.

(Signed) A. HARRARD, M.A.I.
7th. Oct. 1918.

Details of Dredging Plant owned by Irish Harbour Authorities.

COUNTY LONDONDERRY HARBOUR (LONDONDERRY)

Owners: Londonderry Port and Harbour Commissioners.

1 Bucket Hopper Dredger.

Length, 185 ft. between posts, 205 ft. over all.

Breadth, 37 ft.

Self-propelled.

Capacity of hoppers 20,000 cubic ft.

Draft-hoppers empty, 7 ft. 6 in. forward, 11 ft. aft.

" full, 13 ft. mean, 14 ft. 6 in. aft.

Dredging depths: max. 30 ft.

" min. 14 ft. or 15 ft.

Output:—Dredger can fill her hoppers with ordinary spoil in 2 hours, say 400 tons per hour.

1 Grab Barge.

Not Self-propelling.

Length, 40 ft.

Breadth, 20 ft.

Draft, 4 ft. 6 in.

Fitted with steam crane with vertical boiler to work a 10 cwt. Priestman Grab.

Plant employed 6 to 8 months in the year.

The dredger is not in commission and will require a thorough overhaul.

Above information received from A. C. Mc Stewart, Esq., M.Inst. C.E.,
Engineers' Office, Victoria Chamber, Strand, Londonderry.

COUNTY ANTRIM HARBOUR, CARNLUGH.

Owners, Carnlough Lime Coy. Limited.

1 Beam Bucket Dredger.

Length, 48 ft.

Breadth, 16 ft.

Register tonnage, nil.

Not self propelled.

No hopper.

Draft, 4 ft.

Dredging depth, max. 12 ft.

" min. 6 ft.

Output, 40 to 80 tons per day.

1 Tug.

Length, 50 ft.

Depth, 4 ft. 6 in.

Speed, 7 knots

1 Hopper Barge.

Self acting deep bottom.

Not self propelled.

Length, 39 ft.

Breadth, 14 ft.

Register tonnage, nil.

Capacity of hopper, 20 to 25 tons

Plant is employed for 3 to 4 months per annum.

Plant is chartered for use at Glenties.

Above information received from J. Foster Esq., J.P., Managing Director, Carnlough Lime Co. Ltd.
Carnlough.

COUNTY ANTRIM HARBOUR, LARNE.

Owners, Messrs. Howden Bros., Ltd., Steamship Owners, Larne.

1 Small Grab Dredger.

Used only for keeping own quays clear

In 1914 Chartered Department's Dredger "Shusad."

In 1917 Chartered Sligo Dredger "Garvogue," which has since been sold to England.

Above information received from W. E. Harbison, Esq., Director, Howden Bros., Ltd., Larne

COUNTY ANTRIM HARBOUR, BELFAST.

Authority, Belfast Harbour Commissioners.

1 Hopper Dredger.

Length 185 ft.

Breadth 33.5 ft.

Register tonnage gross 740 tons, nett 572 tons

Self-propelled; twin screws.

Capacity of hoppers 760 tons at 20 cub. ft. to the ton

Draught, hopper empty, average 10 ft.

" hopper full " 12 ft.

Dredging depth, max. 40 ft.

" min. 16 ft.

Output 400 to 450 tons per hour.

- 2 Grab Bucket Dredgers.
No hoppers.
- 1 Tug Twin Screw "Musgrave."
Dimensions, 115 ft. x 24 ft. x 11 ft. 3 in.
N.H.P. 140, L.H.P. 900.
Speed $11\frac{1}{2}$ knots.
Tonnage, gross 215, nett 86.
- 1 Tug, Single screw, "Lagan."
Dimensions, 88 ft. 3 in. x 13 ft. x 5 ft. 2 in.
N.H.P. 21, L.H.P. 120.
Speed, 9 knots.
Tonnage, gross 24, nett 5.
- 62 Scoops.
Length, 47 ft.
Breadth, 17 ft.
Not self-propelled.
Capacity, 30 tons.
Draught, empty 1 ft. 10 in.
" " laden 2 ft. 2 in.

Employed all the year.

Information supplied by: T. S. Gilbert, M.Inst.C.E., Engineer's Department, Harbour Office, Belfast.

COUNTY DOWN HARBOUR (DUNDRUM BAY).

Owners: East Downshire Steam Ship Company, Ltd.

- 1 Grab Dredger.
Length, 63 ft.
Breadth, 18 ft.
Register tonnage, 24 tons.
Self-propelled screw.
1 hopper, 40 tons capacity.
Draft hopper empty, 2 ft. forward, 4 ft. aft.
Output about 20 tons per hour.
- 4 Barges.
Not self-propelled.
No self-emptying hoppers.
Length, 63 ft.
Breadth, 13 ft. 6 in.
Capacity, 40 tons.
- 2 Floats.
Not self-propelled.
Not self-emptying hoppers.
Length, 41 ft. 6 in.
Breadth, 15 ft.
Capacity, 25 tons.

Plant is intermittently employed all the year. It is used just as necessity requires.

Above information received from E. G. Hanney, Esq., manager, East Downshire Steam Ship Company, Ltd., Dundrum, Co. Down.

COUNTY LOUTH HARBOUR (DUNDALK).

Owners: Harbour Commission.

- One Centre Well Bucket Dredger.
Length, 130 ft.
Breadth, 26 ft.
Draught, 5 ft. 6 in. forward and 7 ft. 6 in. aft.
Propeller, single screw.
Hoppers, none.
Dredging depths, 25 ft. max.
" " 10 ft. min.
Output, 200 tons per hour.
- One Tugboat.
Length, 48 ft. 6 in.
Breadth, 9 ft. 9 in.
Draught, 4 ft. forward and 5 ft. aft.
Propeller, Single screw.
Engine, Compound surface condensing, 15 H.P.
- Four Hopper Barges.
Length, 100 ft.
Breadth, 25 ft.
Depth, 9 ft.
Draught, 7 ft. loaded; 2 ft. 9 in. light.
Capacity, 200 tons.
- Two Hopper Barges (Nos. 5 and 6). Purchased in 1916 from Drogheda Harbour Commissioners.
Length, 85 ft.
Breadth, 24 ft.
Depth, 7 ft.
Draught, 5 ft. loaded; 1 ft. 2 in. light.
Capacity, 150 tons.

The above plant is employed at dredging operations of the Port on an average of five months in the year.
Above information received from: D. Williams, Esq., M.I.Mech.E., Engineer's Office, Dundalk.

COUNTY DUBLIN HARBOUR (DUBLIN).

Owners, Port and Docks Board.

- 1 Suction Dredger, "Sandpiper."
 - Length, 220 ft.
 - Breadth, 34 ft. 6 ins.
 - Register tonnage, 646 tons nett.
 - Self-propelled.
 - Hopper capacity, 1,500 tons when pumping ashore,
 - 1,400 tons when discharging at sea.
 - Draught hoppers empty, 14 feet.
 - " " full, 17 feet.
 - Dredging Depths: Max. 45 ft.
 - Min. 10 ft.
 - Output actual per working day, 1,200 tons.
- 1 Suction Dredger, "No. 2."
 - Length, 138 ft.
 - Breadth, 27 ft.
 - Not self-propelled.
 - No hoppers.
 - Draught, 6 ft. 10 ins.
 - Dredging depths: max. 40 feet.
 - " " min. 7 feet.
 - Output, 2,000 tons per day.
- 1 Suction Dredger, "Coquet."
 - Length, 80 ft.
 - Breadth, 24 ft. 6 ins.
 - " " over tube 24 ft. 4 ins.
 - Not self-propelled.
 - No hoppers.
 - Draught, 2 ft. forward, 7 ft. aft.
 - Dredging depth: max. 24 ft.
 - " " min. 7 ft.
 - Output, 180 tons per day.
- 1 Bucket Dredger, "No. 3."
 - Length, 180 ft.
 - Breadth, 29 ft.
 - Not self-propelled.
 - No hoppers.
 - Draught, 7 ft.
 - Dredging depth: max. 40 ft.
 - " " min. 8 ft.
 - Output, 800 tons per day.
- 1 Bucket Dredger, "No. 4."
 - Length, 160 ft.
 - Breadth, 39 ft.
 - Not self-propelled.
 - No hoppers.
 - Draught, 10 ft. 6 ins.
 - Dredging depth: max. 35 ft.
 - " " min. 11 ft.
 - Output, 800 tons per day.
- 2 Tugs.
 - 500 I.H. Power.
 - Length, 106 ft.
 - Breadth, 22 ft.
 - Single screw.
 - Draught, 11 ft.
- 2 Steam Hopper Barges.
 - Length, 140 ft. 6 ins.
 - Breadth, 33 ft.
 - Self-propelled.
 - Capacity of hoppers, 900 tons.
 - Draught, empty, 9 ft.; laden, 14 ft.
- 3 Hopper Barges.
 - Length, 147 ft. 6 ins.
 - Breadth, 33 feet.
 - Not self-propelled.
 - Capacity of hoppers, 1,050 tons.
 - Draught, empty, 8 ft.; laden, 14 ft.
- 2 Hopper barges.
 - Length, 90 ft.
 - Breadth, 25 ft.
 - Not self-propelled.
 - Capacity of hoppers, 375 tons.
 - Draught, empty, 4 ft. 6 ins.; laden, 8 ft.
- 1 Hopper barge.
 - Length, 90 ft.
 - Breadth, 25 ft.

2 Barges.

Not self-propelling.
Fitted with hand cranes.
Carrying capacity, 70-110 tons.
Draught, light, 2 feet.
" loaded, 5 feet.
Not self-discharging.

4 Ballast Barges.

Not self-propelled.
Capacity, 70-100 tons.
Not self-discharging.

When improvements works are in progress all the dredging plant is worked. At other times when the plant is not required it is hired out.

Above information received from J. Price, R.A.I., M.Inst.C.E., Harbour Engineer's Office, Cork.

COUNTY KERRY HARBOUR (FERRY).

Owners: Tralee and Fenit Harbour Commissioners.

1 Grab Dredger.

Fitted with suction plant.
Length, 88 ft.
Breadth, 24 ft.
Register tonnage, 59 tons.
Self-propelled.
Self-contained hopper, 150 tons capacity.
Draft, 8 to 9 ft.
Dredging depth in harbour about 35 ft.
Output, 800 tons per day.

Dredger works all the year round.

Dredger is now under charter to Admiralty at or about Devon.

Require a bucket dredger to remove silt from harbour, when own grab dredger could keep berths clear.

Above information received from G. A. E. Hickson, Esq., M.Inst.C.E.I., Engineer's Office, 25, Denny Street, Tralee.

COUNTY LIMERICK HARBOUR (LIMERICK).

Owners: Limerick Harbour Commissioners.

1 Bucket Ladder Dredger, "Eria Go Bragh."

Dredging capacity, 300 tons per hour from a depth of 35 ft.

Bucket capacity, 11 cubic ft.

Hopper capacity, 400 tons.

Number of buckets, 33.

Side shoots for barge loading. Cuts down station.

Built 1894 by Fleming & Ferguson, Paisley.

Dimensions, 134 ft. 8 ins. x 32 ft. x 13 ft., moulded.

Tonnage, gross, 386; net, 189.

Self-propelled screw.

Banker capacity, 50 tons.

Boiler, mild steel multitubular marine boiler. Diameter, 10 ft. 1 in.; length, 9 ft. 6 ins., working pressure, 160 lbs. By Nelson & Sons, Glasgow. New in September, 1909.

Engine: Triple expansion, surface-condensing, independent.

Diameter of cylinders 13 ins., 32 ins., 34 ins.

Stroke, 24 ins.; I.H.P., 500.

Draft, light, forward, 6 ft. 3 ins.; aft, 6 ft. 6 ins.

loaded " 8 ft. 3 ins.; aft, 10 ft. 9 ins.

Mean speed, 7½ knots. Coal consumption under 2 lbs. per I.H.P.

Foreboard, loaded 3 ft. 6 ins.

Hopper, one amidship, capacity 800 cubic ft. with eight doors. Doors worked by hand or steam. One winch for each pair.

Winches, one forward, one aft, for mooring and warping. One ladder hoisting winch and independent engine.

Steering, by hand wheel.

Towing gear, fitted for towing barges.

Classification, under the British Corporation for the Survey and Registry of Shipping.

Class B.S.

Second S.S. No. 2 survey, completed March, 1914.

Accommodation, three officers' rooms, with quarters for 15 men.

Above information received from H. V. Moroney, M.Inst.C.E., Engineer's Office, Limerick Harbour Commissioners, Limerick.

COUNTY MAYO HARBOUR (WESTPORT).

Authority: Westport Harbour Commissioners.

One Grab Dredger.

Length, 89½ feet.

Breadth, 22½ feet.

- 1 Tug.
Length, 53 ft.
N.H.P. 40, I.H.P. 60.
Register tonnage: gross, 21.65 tons; nett, 5.12 tons.
- 2 Hopper Barges, "Ocean" and "Chooq."
Not self-propelled.
Length, 58.5 ft.
Breadth, 19.1 ft.
Capacity, 150 tons.
Draught, Empty, 2 ft. 9 in.
Laden, 7 ft.

Suction Dredger is mainly employed to keep the entrance to Arklow Harbour free from the shifting sand. When not so employed works at other Ports.

Bucket Dredger works at such Ports as may be decided on by the Department.

Both vessels are seldom in commission at the same time.

Above information received from A. Hassard, Esq., M.A.I., Engineer's Office, Fisheries' Branch, Department of Agriculture.

COUNTY ANTRIM.

Owners, Lough Neagh Drainage Trustees.

- 1 Dredger.
Sole buckets
Not self-propelled.
No hoppers.
Length, 50 ft.
Width, 14 ft. 6 ins.
Depth, 5 ft. 6 ins. from top of deck to top of concrete floor.
Draught, 5 ft. 7 ins.
Dredging depth, max. 8 ft. 6 ins.
" " min. 4 ft.
- 3 Barges.
Not self-propelled.
No hoppers.
Length, about 30 ft.
Breadth, about 11 ft.
Draught, empty 2 ft., laden 2 ft. 6 ins.
Capacity, 5 to 7 cubic yards.

A small grab dredger if available would be much used.

Above information received from: H. Shillington, M.A.I., Lurgan, Engineer to above.

COUNTY ANTRIM.

Owners, The Upper Bann Navigation Trust.

- 1 Grab Barge.
Length, 50 ft. 4 ins.
Breadth, 14 ft. 10 ins. or 15 ft. 4½ ins. over iron fender bulking.
Register tonnage, nil.
Not self-propelled.
No hoppers.
Draught, 8 ft. 7 ins.
Fitted with a Priestman grab.
Output under existing barge provision, 50 cubic yards per day.
- 3 Barges.
Not self-propelled.
No hoppers.
Length, 30 ft.
Breadth, 11 ft.
Draught, empty, 2 ft.; laden, 2 ft. 6 ins.
Capacity, 5 to 7 cubic yards.

Used about 3 months in the year.

A small grab dredger, if available, would probably be used.

Above information received from: H. Shillington, Esq., M.A.I., Lurgan, Engineer to above.

COUNTY ANTRIM.

Owners, The Lagan Navigation Co.

- 1 Bucket dredger.
Length, 50 feet.
Breadth, 11 ft. 3 ins.
Depth, 4 ft. 6 ins.
Central bucket system.
Not self-propelled.
No hoppers.
Draught, 3 feet.
Dredging depth—maximum, 8 ft. 6 ins.
" " minimum, 3 feet.
Output 30 cubic yards per day.
- 1 Tug-twin screw.
Length, 60 feet.
Draught, 6 feet.

Used by Navigation Co. for towing lighters.

Dredger used as required—sometimes not used for months.

A small grab dredger if available would be much used.

Above information received from H. Shiffington, Esq., M.A.I., Lurgan, Engineer to above.

DREDGE PLANT RECENTLY SOLD.

DROGHEDA.

Bucket dredger sold in 1916.

Two hopper barges sold in 1917.

WICKLOW.

Steam hopper dredger "Leitrim" sold in 1912.

WEXFORD.

Suction dredger "Hamoor" sold in 1911.

Bucket dredger "Slaney" sold in 1916.

COCKE.

A new 400 ton hopper with two grab cranes sold in 1917.

LIMERICK.

Self-propelled grab hopper dredger, "Carraghgor," built in 1912—Classed 100 A1 hopper barge at Lloyds—sold in 1916.

KILLALA.

A dredger sold in 1914.

SLIGO.

Dredger "Garvogue."

Hopper barge "Chatham."

Tug "Carlton."

Sold within about the last year.

I have reason to believe that there has been more dredging plant sold than is shown above, but I have been unable to obtain details.

The Harbour Commissioners of Westport wish to sell their dredging plant.

Drogheda, Wicklow, Wexford and Sligo have now no dredging plant. Killala has only a barge and a small steam launch.

With the exception of the two barges sold by Drogheda all the plant has left Ireland.

(Signed) A. HARRATT, M.A.I.

7th October, 1918.

HARBOURS AT WHICH DREDGING IS REQUIRED.

1.—The following information as to harbours likely to require the use of dredging plant is based on information received when making inquiries as to the existing dredging plants —

Secretary, Coleraine Harbour Commissioners.—If a suction dredger could be obtained at times for use at the entrance to the River Bann for maintaining a navigable channel through shifting sand it would be a great convenience.

Manager, Carnlough Lime Company.—Had thoughts of trying a "Digger" dredger, but did not succeed in hiring one.

Director, Howden Brothers, Larn.—Hired Department's dredger "Shuaad" in 1914 and the Sligo dredger "Garvogue" (now sold to an English firm) in 1917. Think dredging will be required in connection with shippards.

Engineer, Newry Port and Harbour Trust.—Last dredging carried out in 1884. We could do with a side bucket dredger for the canal and a centre bucket dredger for the tidal river.

Engineer, Dundalk Harbour Commissioners, forwards copy of proposals to be submitted to the Sub-Committee.

Secretary, Drogheda Harbour Commissioners.—May require a mud dredger for the bar and a bucket dredger in the river and harbour.

Secretary, Wexford Harbour Commissioners.—Harbour is badly in need of dredging, but no funds.

Engineer, Fenn Harbour.—We require a bucket dredger to clear the harbour from silt. Our own grab could then keep the berthings clear.

From letters from other ports it would appear that the existing plant is capable of the ordinary maintenance work, but that should improvements be attempted additional dredgers would be required.

The Engineer of the Dough Neagh Drainage Trust, Upper Bann Navigation Trust and Lagan Navigation Company states that he is of the opinion that if a Central Authority had a suitable dredger to hire it would be very much employed by these three bodies.

2. The Department's dredging plant has recently worked for longer or shorter periods at the following places:—1, Benecrana; 2, Morille; 3, Portrush; 4, Ballintoy; 5, Lorne; 6, Carrnackfergus; 7, Dandalk; 8, Annagassan; 9, Drogheda; 10, Balbriggan; 11, Wicklow; 12, Arklow; 13, Courtown; 14, Kilmore.

3. Mr. Dick's report of 1902, a copy of which is, I understand, before the Committee, recommends an expenditure of £25,530 on dredging. In 19 harbours the individual expenditure exceeds £100, and these places are shown on Map F by a red line and a red number, the number being that in the 1902 report.

(Signed) A. HARRARD, M.A.I.

7th October, 1918.

APPENDIX No. 38.

STATEMENTS furnished by *Sir George Stenson*, Chairman of the Commissioners of Public Works in Ireland.

(a) Memoranda on the Functions of the Commissioners of Public Works in connection with Harbours and Canals in Ireland.

In relation to Harbours the functions of the Commissioners of Public Works fall into three divisions:—

I. Fishery Piers and Harbours, and Marine Works under the Act of 1902.

II. The so-called Royal Harbours.

III. Commercial Harbours.

I. Fishery Piers and Harbours have been constructed by the Commissioners under certain Acts of Parliament aiming at the development of the Fisheries*. They are in most cases small tidal works for the convenience of local fishermen in launching their boats and landing their catches. In some cases they are more ambitious, and by giving a greater depth at high or low water afford facilities for the larger boats employed in deep sea fisheries, and enable small trading vessels or fish carriers to use them.

I have had a list prepared of the Fishery Piers and Harbours that come under this description, amounting to 25 out of 188, which I beg to hand in.

In general I may say that in all Fishery Piers and Harbours there is no equipment of cranes or other facilities beyond the quays, ramps, ballards, and in some cases boat-slips.

When constructed by the Commissioners they are handed over by Warrant to the County Councils, formerly to the Grand Jurors, for maintenance, subject to a power of the Lord Lieutenant, in case of neglect, to direct the Commissioners to restore the Pier or Harbour to its original condition at the expense of the local authority.

Generally speaking I should say that the works are sufficient for the purpose for which they were designed and that the absence of equipment, e.g., in the matter of cranes, does not seriously affect their utility as the vessels requiring such facilities are usually provided with them as part of their own equipment.

No doubt in some cases, owing to changes in the manner of fishing, the piers do not give facilities which would now be thought desirable if the work had to be done *de novo*.

To remedy this deficiency the Marine Works Act was passed in 1902, which gave a wider scope in the planning of these small Harbours or improving existing Harbours with reference not merely to fishing but to local industries, but its operation is limited in Congested Districts.

A list of the works constructed under this Act, showing the accommodation given, is appended.

The operation of the Development Fund may lead to the provision of harbour accommodation for fishing boats and minor general trade on a fairly large scale.

Two such schemes at Burtonport and Benema have been approved, and another at Dingle, but are hung up owing to the War.

It is proposed that the Commissioners should carry out the works under the Fishery Acts so as to take advantage of the power given to them by these Acts to make loans, and to transfer the completed works for maintenance to local authorities.

II. Of the five "Royal" Harbours—Kingstown, Howth, Ardglass, Duncree and Donaghadee—two, viz., Ardglass and Howth, are vested in the Commissioners of Public Works as such; the other three—Kingstown, Duncree and Donaghadee—are vested in separate Commissioners appointed under local Acts by the Lord Lieutenant, who, in practice, appoints the individuals who happen at the time to be the Commissioners of Public Works. All five are maintained out of Voted monies, which also bear the cost of all improvements.

Of the five, three—Howth, 1810, Duncree, 1818, and Donaghadee, 1821—were started as Mail Packet Stations. Kingstown, 1815, was intended to be a Harbour of Refuge with facilities for Mail Packet services and for general trade. It has since become a Naval Station varying in importance from time to time, and the Headquarters of the Irish Lights service.

Ardglass was originally a private Harbour; it was vested in the Commissioners of Public Works by the local Act 39 and 40 Vic., cap. 230.

Duncree, Howth and Donaghadee have long ceased to be used for Mail Packets, but the importance of Kingstown as a Mail and Passenger Station has steadily increased, and it is now the "Gate of Ireland." For this purpose, under present conditions, it is fully equipped and suitable. Larger or more numerous vessels would necessitate considerable works.

As regards facilities for landing and exporting fish and for general trade.

Donaghadee has a small coal trade for which the accommodation is adequate.

Ardglass has a considerable fish trade and some imports of coal and exports of potatoes, for which the accommodation is adequate.

Howth is in the same position as regards export of fish and import of coal.

All these three have either railway sidings on the piers or (as at Howth) a closely adjoining railway station.

Duncree is 11 or 12 miles from a railway station by a hilly road. It has a considerable fish trade (for which fish-carriers by sea are used) and a small local general coal trade. For all these facilities are adequate.

* Full particulars of the system are given in the second report of the Royal Commission on Public Works (C.15,264), 1886, paras. 16 to 300.

Kingstown does little or nothing in the export of fish, but has a considerable coal trade, some export trade in home-grown timber and import of railway material. The facilities for all these are adequate.

None of the five Royal Harbours has any part of the equipment that is found in large commercial ports, with a general business, such as steam or electric cranes, transit sheds, warehouses, etc., but the commercial business done at them is not in its nature such as to require such equipment, and does not appear likely to change in quality or greatly to increase in quantity.

As regards depth of water, it may be said generally that it is now greater than when the Harbours were built.

III. *Commercial Harbours.*—The Commissioners of Public Works have no control over these as regards either maintenance, management or improvements, except that in the case of Galway they exercise some control over expenditure as they audit the accounts.

Their statutory powers enable them to make loans for harbour works.

These loans are of infrequent occurrence. Particulars are given in the attached statements (3).

A total of £595,385 has been advanced.

Of this £283,832 has been repaid, and there is now outstanding a balance of £311,553.

Except for a temporary advance of £15,000 in 1839, repaid two years later to the Belfast Harbour Commissioners, the Commissioners have had no loan transactions with the Harbour Authorities of Dublin, Belfast, Cork, Londonderry or Waterford.

In commercial harbours, therefore, any statements as to the adequacy of existing facilities, or the provision of improvements, should be sought from the Harbour Commissioners in each case.

CANALS AND NAVIGATIONS.

The Commissioners of Public Works are owners of the Shannon Navigation; they are not carriers, but maintain the navigation, and charge tolls on vessels using it. Between Limerick and Carrick-on-Shannon and on the branch to Boyle, the locks are capable of taking any canal boat that can traverse the Grand Canal, which is the principal carrier on the Shannon; between Carrick and Lough Allen the depth and the locks are smaller.

The Commissioners at one time owned the Ulster Canal, which was transferred in 1888 to the Lagan Navigation Company. They also maintain certain works on a small Navigation, the River Maigue, from the Shannon to Adare.

The whole question of the Canals of Ireland was carefully enquired into by the Royal Commission on Canals and Waterways, who reported in 1911 (Cd. 5626). As the Government has not expressed its views on that report, the Commissioners feel themselves precluded from making any remarks on the suggestions made in it.

(b) LIST OF THE MORE IMPORTANT FISHERY PIERS AND HARBOURS AFFORDING FACILITIES FOR FISHING AND GENERAL TRADING VESSELS.

No. on Map.	Name.	County.	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
1	Balbriggan	Dublin ...	Pier and Quay	Dublin Port and Docks Board	Pier 270 feet long. Harbour dries out at L. W. At H. W. about 12 feet alongside pier. Railway passes across head of harbour. Sifting mach. complained of. Small fishing and general trade.
2	Arklow	Wicklow...	Pier and Harbour	Arklow Harbour Commissioners	Harbour endows about 23 acres with depth ranging from 6 to 10 feet at L. W. Basin for fishing craft recently erected near main pier. Much used for fishing boats and general trade. Entrances sometimes obstructed by bar. Railway passes through town but not directly connected with harbour.
3	Courtown	Wexford...	Pier and Jetty	Lord Courtown	Small pier harbour, screw pile jetty 200 feet by 15 feet with a T head 32 feet wide nearly dry at L. W. Four miles by road from Corey, the nearest railway station. Some fishing and general trading carried on.
4	Kilmore	Wexford...	Pier and Quay	Wexford County Council	Small single pier and groyne. Quay about 100 feet by 34 feet. Originally had about 5 feet depth at L. W. at pier, but it has become so silted up as to dry out now at L. W. It is about five miles from railway (Rosslare Branch). Some little fishing and general trading.
5	Duncannon	Wexford...	Pier and Boatlip	Wexford County Council	In Waterford Harbour East side. Single Pier about 350 feet long and 33 feet wide with approach quay. Rubble mound on which pier is erected makes it difficult to lie alongside. Harbour much silted up with mud. Landing by bulk maced off pierhead and connected thereto by a gangway. Some small amount of fishing and general trade. About four miles from Rosslare Branch Railway.

No. on Map.	Name	County	General Description	Controlling Authority	Facilities for Transport, Remarks, etc.
6	Passage East	Waterford	Pier and Breakwater	Waterford County Council	Three small parallel piers and shelter breakwater situated in Waterford Harbour (West side), enclose an area about 450 feet by 300 feet which is nearly dried out at L. W. Depth about 12 feet alongside piers at H. W. Considerable fishing trade and some general trade and coaling carried on. Waterford nearest railway station seven miles distant. Ferry across harbour here to Wexford side.
7	Boat Strand	Waterford	Pier, Breakwater and Wharf	Waterford County Council	In Dunsbratin Bay, County Waterford. A small pier 100 feet long with wharf 20 feet wide, together with a groyne or breakwater 300 feet long shelters an area about 300 feet by 200 feet most of which dries out at L. W. The pier has a depth at L. W. about 2 feet and about 12 feet at H. W. In the sheltered area is a boatslip 130 feet long terminate ing at its inner end in a platform 110 feet by 80 feet. The place suffers a good deal from silting. Some fishing and general trade in coal, etc. Railway Station Carril's Cross on Waterford and Dungarvan Line about seven miles distant.
8	Ballynagall	Waterford	Pier and Wharf	Waterford County Council	A pier of about 400 feet in length and 40 feet wharf width, portion of which is occupied by a boatslip. From the wharf angle of the pier head a breakwater projects at right angles to the pier wharf line 110 feet long by 5 feet top width. Originally L. W. depth of 2 feet along the outer berths and 14 feet at H. W., but the place is now heavily silted up and dry at L. W. Distance seven miles from Dungarvan Railway Station. Used by small fishing boats and occasional collisions.
9	Ballycotton	Cork	Pier, Boatslip, Breakwater and Wharf	Cork County Council	Pier 500 feet long in two parts with wharf width of 35 feet together with breakwater or groyne 500 feet in length, enclose an area of 500 feet by 300 feet. L. W. depth along outer part of pier about 12 feet, depth at H. W. about 25 feet. Situated on south shore of Ballycotton Bay, co. Cork, ten miles from Middleton Station on Youghal branch of Great South and Western Railway. Used by fishing boats and small general trade by steamers and schooners.
10	Kinsale	Cork	Pier and Quay	Kinsale Harbour Commissioners	A pier 180 feet long by 100 feet wide, covering a dangerous rock, together with a line of quay about 1,900 feet in length, formed by facing up between numerous old quays and jetties. Depth at L. W. varies from 7 feet to 9 feet along the quay line. Depth at H. W. about 14 feet. Nearest railway station, Kinsale, about one mile from pier. Fishing and general trade carried on. This was the most important port on South coast, but Cork has checked its development. A bar running across the harbour prohibits large shipping from using the port.
11	Baltimore	Cork	Pier, Wharf and Boatslip	The slips are under the control of the Baltimore Harbour Commissioners. The pier is under the control of the County Council of Cork.	As extension to a very old pier forms one 160 feet by 25 feet wharf width and L. W. depth along the outer berths of about 3 feet. H. W. depth about 18 feet. Two small boatslips, a perch on a dangerous rock, a lighthouse and lightkeeper's house form the works. The place is an important fishing centre, and has considerable general trade. It is also the port for the islands in the offing. Since the completion of the above works the Department of Agriculture and Technical Instruction have constructed a pier adjacent to the Baltimore Railway Station.

No. on Map.	Name.	County.	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
12	Union Hall	Cork	Pier, Wharf and Quay	Cork County Council	The works situated on north shore of Glendree Harbour consist of a pier, the surface of which is inclined seawards, 350 feet in length, with a wharf width of 25 feet. At pier root there is a quay about 110 feet in length by 20 feet in width. Depth at L.W. at pier head about 3 feet diminishing to 0 feet about 120 feet landwards of head. The quay is dry at L.W. At H.W. depth of from 15 feet to 8 feet alongside pier. Nearest railway station, Skibbereen, on Cork, Blackrock and S.C. Railway. Distance, about seven miles. Place used for fishing vessels and small trading schooners.
13	Dingle	Kerry	Pier and Boatlip	Dingle Harbour Commissioners	A pier 680 feet in length and about 33 feet wide, which includes a boat slip, has been built at various times. The whole is dry at L.W., about 12 feet depth available at H.W. Some fishing and a small amount of general trade is carried on, but the whole harbour is so shallow that except for a narrow shallow channel nearly one mile in length between the pier and the entrance, it all dries out before L.W. Dingle Railway Station, the terminus of the Tralee and Dingle Railway, is about half-mile distant. The place is much kept back by the difficulty of approach from seawards.
14	Tarbert	Kerry	Piers and Quay	Kerry County Council	The works consist of two piers roughly parallel, connected by a quay at their inner ends. The North pier is 500 feet in length with a wharf width of 35 feet. The South Pier, which is an older work, is 300 feet in length, with a wharf width of about 25 feet. The Quay is 300 feet in length by 35 feet in width. The South Pier, Quay and most of the area sheltered by the piers dries out at L.W. The L.W. depth for the outer 300 feet of the North Pier is about 10 feet, and at H.W. about 25 feet. The work is on south side of Shannon Estuary and is heavily silted up. Nearest railway station, Lattin, 11 miles distant. Not much fishing, small and decreasing general trade.
15	Carrigrohilly	Clare	Pier, Wharf and Quay	Clare County Council	Works situated in Carrigrohilly Bay on north shore of Shannon Estuary near entrance. A pier 250 feet in length with an outer part 90 feet in length, each having a wharf width 24 feet. A quay and inclined approach 355 feet in length and about 28 feet in width, gives access to the pier. L.W. depth about 7 feet along quays and diminishing to 0 feet at pier root. The Quay and approach dry at L.W. Nearest railway station Kilkee on West Clare line, seven miles distant. Small fishing and general trade, but work is convenient for wind-bound vessels lying in the Carrigrohilly Roads, a safe anchorage off the village.
16	Behanillet East and West	Mayo	Pier, Quay, Canal, &c.	Mayo County Council	These works consist of a canal connecting the heads of Broadhaven and Blackod Bays at Behanillet, with berthing accommodation for small vessels at either end of it. Behanillet West Pier, 257 feet in length, with a wharf width of 24 feet and a H.W. depth of 11 feet, is on the Blackod Bay side. Behanillet East is a quay 300 feet in length by 50 feet wharf width and a H.W. depth of about 11 feet, and is on the Broadhaven end of the canal. The canal is about 1,500 feet in length and 60 feet wide at surface level at H.W., with a depth of about 10 feet. In addition to the above an approach channel about 2,000 feet in length and 100 feet bottom width and 3 feet at L.W., has been dredged in Broadhaven. These works are now much silted up. Not much fishing here, but a fair amount of general trade. Nearest railway station Mulrany on M.G.W.R. about 33 miles distant.

No. on Map	Name.	County	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
17	Bundoran	Donegal ...	Quay, Boat-Slip	Donegal County Council	The works consist in a small quay, boat slip, and boat platform. The clear berthage along the head of the quay is 45 feet in length by 25 feet in width, with a depth at H. W. of about 12 feet. The total length of quay is 145 feet by 25 feet, but the boat slip beside it prevents its use by larger vessels. A boat platform about 40 feet square has been provided at the head of the slip. The whole works are dry at L. W. The whole foreshore here is in solid rock, and a channel about 1,000 feet in length would have to be cut through it before any useful depth at L. W. could be gained. There is some fishing and a small amount of general trade. Nearest railway station, Bundoran, on G.N. Railway about 1 mile distant.
18	Killybegs	Donegal ...	Pier	Donegal County Council	The works consist in a timber pier 250 feet long by 28 feet wide, springing from the head of a previously existing old stone pier. Depth at head at L. W. 7 feet, diminishing to 0 feet at rock, and at H. W. 18 feet, 6 inches diminishing to 11 feet. A siding from Killybegs station which is at root of pier, runs down the pier. The pier is used for fishing boats and for general trade chiefly in coal.
19	Buncrana	Donegal ...	Pier and Wharf	Donegal County Council	A pier 400 feet long, with a wharf width of 35 feet, connected to shore by causeway or approach 450 feet long by 20 feet wide. In recent years an open timber extension 90 feet long and 30 feet wide has been added to solid pier head. L. W. depth along side timber portion 4 feet to 2 feet, and at H. W. 16 feet. The remainder dries out at L. W. Much used for fishing and general trade. Nearest railway station, Buncrana, on Londonderry and Lough Swilly Railway, about 1 mile distant by road.
20	Portstewart	Londonderry	Breakwater and Boat-slip	Londonderry Co. Council	A breakwater about 320 feet in length shelters a small basin for fishing boats about 200 feet by 150 feet in area, the landward side being provided with a boat-slip and wharf for hooking up boats. The place is useful for small fishing boats. Distant about 2 miles from Portstewart Station on Midland Railway (N.A.U.)
21	Newcastle	Down ...	Piers ...	Down Co. Council	The South Pier about 650 feet in length and 20 feet wharf width, and the North Pier 450 feet in length by 35 feet wharf width, together shelter an area of 350 feet by 300 feet. The harbour is nearly dry at L. W., but at H. W. has about 14 feet at seaward berths of South Pier. Some fishing and general trade, chiefly in coal. The work is situated on the South shore of Donaghadee Bay. Nearest railway station, Newcastle, on R. & Co. Down Railway, half mile distant.
22	Annalong	Down ...	Quay	Down County Council	An existing small basin extended to about 220 feet by 120 feet, and quays about 350 feet in length and 25 feet wide added. Some dangerous rock shoals also were removed from about entrance. The whole nearly dries out at L. W., but at H. W. the depth is about 12 feet. The place is considerably silted up. Some fishing and general trading. Nearest railway station Newcastle on R. & Co. Down Railway, distant 8 miles.
23	Kilkeel	Down ...	Piers, Quays, slips, etc.	Down County Council	A pier about 500 feet in length with wharf width of about 30 feet. L. W. depth at head about 4 feet diminishing to 0 feet at 150 feet landwards from pier head. H. W. depth about 12 feet. A basin about 400 feet long and 100 feet wide, dry at L. W. and surrounded by quays about 50 feet in width, together with a boat-slip at approach quay to pier root. The place is much used for fishing craft and general trade. Works additional to the above have been carried out by the Department of Agriculture and Technical Instruction.

No. on Map.	Name.	County.	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
24	Coolingford	Louth	Piers and Boat Slips, etc.	Louth County Council	Works situated on South shore of Carlingford Lough by means of two piers enclose an area about 1,000 feet square. The East Pier is about 680 feet in length, with a wharf width of 25 feet. The West Pier is about 300 feet in length, with a wharf width of 20 feet. Both piers and enclosed area dry out at L.W. At H.W. there is a depth of about 15 feet along the outer berths of either pier. A boat slip and platform are provided at east of East Pier. The harbour is used for fishing boats and small general trading schooners.
25	Giles Quay	Louth	Pier	Louth County Council	A concrete pier, about 440 feet long, used by fishing and some general trading vessels. About 3 miles from Irish Station on the Dundalk and Greenore Branch Railway.

(c) MARINE WORKS ACT, 1902.

WORKS CONSTRUCTED AND MAINTAINED BY THE COMMISSIONERS OF PUBLIC WORKS
FOR THE PURPOSE OF DEVELOPING INDUSTRY OR TRADE CARRIED ON BY
THE INHABITANTS OF CONGESTED DISTRICTS.

No. on Map.	Name	County.	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
26	North Harbour Cape Clear Island	Cork	An Inner Basin and inner Harbour	Commissioners of Public Works	The existing old works constructed under the Fisheries Acts and transferred to the County Council were added to and modified so as to comprise— <i>An Inner Basin</i> , 350 feet by 110 feet (which can be closed off from the ocean swell by booms), in which boats may be stowed and lie in safety through the winter. Light crane provided for working booms. Depth about 10 feet 6 inches at L.W., dry at L.W. <i>An Inner Harbour</i> just outside the basin entrance used for the packet motor boat and fishing boats in ordinary weather, about 180 feet by 80 feet in area. Depth about 5 feet at L.W. and 14 feet at H.W. Wharf space all round the above averages about 25 feet wide. The work was carried out solely for the purpose of providing shelter for the numerous decked fishing boats belonging to and worked by the Cape Clear men, so as to obviate the necessity of laying up their boats in mainland ports for the winter. It has done this.
27	Round Point	Kerry	Boat Slip...	Commissioners of Public Works	The works done under Marine Works Act consisted in extending and widening a small existing old slip, constructed under the Sea Fisheries Acts and transferred to the County Council, to one 300 feet in length by 45 feet in width, with a depth of 5 feet at L.W. at its outer end. The work is situated in Valencia Harbour, County Kerry, adjacent to Valencia Harbour Railway Station on Great Southern and Western Railway. It is much used for landing fish in the season and also for the ferrying of passengers and goods between Valencia Island and the mainland.

No. on Map	Name.	County.	General Description.	Controlling Authority.	Facilities for Transport, Remarks, etc.
28	scannal	Clare	Two Piers and Harbour enclosed	Partly County Council, partly Commissioners of Public Works	Small two-pier harbour, enclosing area about 360 feet by 200 feet, situated on North shore of Liscannor Bay, County Clare. The Piers were constructed under the Sea Fisheries Acts and transferred to the County Council. The works carried out under the Marine Works Act consisted in providing two berths, each 142 feet in length, suitable for small steamers, the excavation and removal of rock and silt from the harbour bed, and the formation of a storage ground for stone for export about 200 feet by 100 feet in area. Harbour almost dry at L.W. The place is little used for fishing except from canoes. When the Dooenore Quarries were being worked some years ago a considerable quantity of millstone grit flags were exported to England in small steamers and schooners. Nearest railway station Lahinch, about 4 miles distant.
29	Roundstone	Galway	Harbour, 300 by 200 feet enclosed by two piers	The Commissioners of Public Works for the extension to North Pier and the County Council of Galway for the remainder of the works	Situated on West side of entrance to Bertraghboy Bay, West Galway. Two L-shaped piers enclose an area 600 feet by 200 feet, more than half of which dries out at L.W. <i>North Pier</i> berthing, 250 feet long, with wharf width of 30 feet, built under the Sea Fisheries Acts and vested in the County Council of Galway. Under the Marine Works Act, 1902, 70 feet was added to this pier. This portion is vested in the Commissioners of Public Works. <i>South Pier</i> berthing, 140 feet long, with wharf width of 35 feet, built under the Sea Fisheries Acts and vested in the County Council of Galway. All berths nearly dry at L.W. Not much fishing carried on from here; an occasional schooner with coal comes in and some hookers. Distance about 7 miles from Ballyvaughan Station on Midland Great Western Railway, Clifden Branch.
30	Kilroan	Galway	Main Pier Harbour and smaller West Pier	Main Pier—County Council of Galway West Pier—Commissioners of Public Works	<i>Kilroan</i> —North Island of Aran, Galway Bay. <i>The Main Pier</i> , 300 feet long and 40 feet wide, with an approach runway 200 feet long and 18 feet wide, with a L.W. depth of 5 feet at head, diminishing to 0 feet at inner, and is the principal work. This was constructed by the Commissioners of Public Works and transferred to the County Council of Galway under the Sea Fisheries (Ireland) Acts. <i>The West Pier</i> is a small jetty 120 feet long by 30 feet wide, used almost altogether by boats bringing in turf to the island from Connemara. This was reconstructed and enlarged by the Commissioners of Public Works under the Marine Works Act, 1902. <i>The Main Pier</i> forms the berth for the Galway steamer, with which communication is kept up to the mainland and for the numerous docked fishing vessels. <i>Kilroan</i> is an important fishing station with some general trade in cattle and sheep. It is about 30 miles distant from Galway by sea.
31	Cleggan	Galway	Main Pier Basin, Groyne and Cattle Slip	Partly County Council of Galway and partly Commissioners of Public Works	The existing works, which had been constructed by the Commissioners of Public Works and transferred to the County Council of Galway, were extended and improved so as to include <i>Main Pier</i> , 238 feet in length by about 20 feet wharf width; the outer 152 feet, having a mean L.W. depth of 5 feet and 17 feet 6 inches at H.W., has accommodated fairly large steamers. <i>Groyne and Cattle Slip</i> —A structure about 200 feet long and 30 feet wide, which shelters the small boat strand to West of it, and provides a wide easy slipway for loading and unloading cattle and pigs from islands in the offing. The head of the groyne is fitted to make a berth for a small steamer or schooner. <i>Basin</i> —A small basin 120 feet by 100 feet provides shelter for small yachts and canoes. Quays surround the basin about 25 feet wide. Place is a very important fishing station, but much hampered by very bad road between Cleggan and Clifden Railway Station, 8 miles distant. Road so hilly a strong horse cannot take a load of more than 15 cwt, about.

No. on Map	Name	County	General Description	Controlling Authority	Facilities for Transport, Remarks, etc
22	Kinvara...	Galway ...	Small Pier and Quay	Commissioners of Public Works	The works constructed under Marine Works Act consisted in the construction only of a small pier and quays situated in the village of Kinvara at the head of a long inlet at south-east angle of Galway Bay. The pier is about 185 feet long by 45 feet wide, and about 350 feet lin. of quays about 35 feet wide. No fishing done here; imports almost all fuel, and exports an occasional schooner of barley. Nearest railway station Arosphan, on Great Southern and Western Railway, 6 miles distant.
23	Gortasanto	Donegal ...	Quay ...	Commissioners of Public Works	Gortasanto, situated in the Rosses, co. Donegal, to east of Croft Island, on mainland. Works consist of a deep water berth 140 feet long, with quay space 50 feet wide. Depth alongside varies from 17 feet to 10 feet at L.W. An approach road 300 feet in length, 16 feet wide, connects the quay with the county road. This is a most useful work for the fishing industry, and large curing yards and sheds have been erected by the fish merchants of the vicinity. Landwards of the berth are a small boat harbour and slips built by the Congested Districts Board. Nearest railway station Kincalagh Road Station, on the Burtport Line, about 4 miles distant, over a bad road.
24	Cladnageragh	Donegal ...	Pier ...	County Council of Donegal (under lease)	An extension in timber 60 feet in length by 20 feet in width of a small existing pier constructed by the Congested Districts Board, which dried out at L.W. The pier now provides a depth of from 14 feet to 8 feet alongside at L.W. Useful for fishing craft, which can come or go at any stage of tide. Situated on east side of entrance to Teelin Bay, co. Donegal. Nearest railway at Killybegs, 9 miles distant. Not very much used. Teelin Pier opposite it on west side of bay more convenient for the fishing fleet.
25	Portree...	Donegal ...	Pier ...	County Council of Donegal (under lease)	The works consisted of the reconstruction of an old pier destroyed by the sea. Length 238 feet, with a wharf width of 21 feet 6 inches. Whole nearly dry at L.W., average depth about 10 feet at H.W. Situated on south shore of Gweedagh Bay, co. Donegal, about 11 miles by road from Glenties, the nearest railway station. This place is little used for fishing or any other purpose.
26	Downies Bay	Donegal ...	Pier ...	County Council of Donegal (under lease)	Situated on east side of Sheephaven, co. Donegal. Single pier, 350 feet in length, with a wharf width of 30 feet. The original work was constructed under the Sea Fisheries Acts and transferred to the County Council. Under the Marine Works Act, 1909, an addition of 10 feet was made to the outer end of the pier. Depth of water at head 14 feet at L.W., diminishing to 9 feet at inner end. A most important fishing station. The head round pier roof covered with curing yards and stores. Distance about 6 miles from Greenough Railway Station, on Burtport Line. Bad road.
27	Falcarrig	Donegal ...	Boat Slip	County Council of Donegal (under lease)	Boat slip, 300 feet in length by 20 feet in width, extending between levels of H.W. and L.W., with a small boat platform at head about 90 feet by 50 feet. The work is situated on north shore of Gweedagh Bay, co. Donegal, and is about 7 miles distant by a bad road from Dungleigh Road Station, on Burtport Line. It is little used except by occasional gulls in the herring season and by small boats landing seaweed for manure.

(d).—ROYAL HARBOURS.

No. on Map.	Name	County	General Description	Controlling Authority	Facilities for Transport, Remarks, etc.
38	Kings town	Dublin	Harbour, 223 acres, enclosed by breakwaters	*Commissioners of Kingstown Harbour.	<p><i>Kingstown</i>.—Exclusive of Carlisle Pier and Victoria Wharf, these are available for commercial shipping.</p> <p><i>Trader's Wharf</i>.—430 feet long by 70 feet wide, connected to Dublin and South Eastern Railway by a siding. Low water depth alongside varies from 12 feet at outer end to about 6 feet at inner end. Good road gives access to wharf for carts. Water hydrants on wharf. Used by trading steamers of all descriptions. No goods, stores or cranes on wharf.</p> <p><i>Dockyard Pier</i>.—400 feet long by 60 feet wide. Not connected by rail. Dries out a low water. Depth alongside at L.W. about 10 feet. Chiefly used by colliers. No goods, stores or cranes on pier.</p> <p><i>West Pier Berth or Fish Bank</i>.—A portion of West Breakwater wharf well adapted as a berth for small coal steamers and similar craft. Length 200 feet by 30 feet. About 6 feet depth alongside at low water. No goods, stores or cranes at berth. Chiefly used by small colliers and fishing boats. No railway connection, but accessible by good road.</p>
39	Horth	Dublin	Harbour, 50 acres, enclosed by breakwaters	Commissioners of Public Works	<p>Two small jetties, about 100 feet and 70 feet, project into the harbor from near the outer ends of the East and West Breakwaters. Depth alongside these jetties about 5 feet at L.W. No cranes or goods stores upon them. Chiefly used by fishing and pleasure craft.</p> <p>Besides the jetties, a length of about 800 lin. feet of the West Breakwater, 50 feet wide, with a L.W. depth of about 6 feet at its outer end, diminishing to 0 at its inner end, is used as berthage for colliers, schooners, fishing boats, etc. No cranes or goods stores available, though there are several private stores upon the West Breakwater.</p>
40	Ardglass	Down	Harbour, 19 acres, L.W. O.S.V., enclosed by breakwaters	Commissioners of Public Works	<p><i>South Pier</i>.—Berthage at South Pier about 230 feet long, with a wharf width of about 32 feet. L.W. depth at outer end about 12 feet, diminishing landwards to 3 feet. Branch of Belfast and County Down Railway runs on to the Pier. Quays at pier root dry at L.W. Enclose an area about 350 feet by 200 feet in extent, upon which a coal store has been erected. One 15-ton crane, no goods stores available. Used by colliers, small trading steamers and schooners and fishing craft.</p> <p><i>North Pier, Quay and Basin</i>.—Small pier, 60 feet length of berth wharf, 28 feet wide, quays about 600 lin. feet and 40 feet wide, and small basin, enclosing area about 200 feet by 120 feet, the whole of which dries out at L.W. No goods stores and no cranes available. This portion of harbour not connected to railway. Used for small coasters and fishing craft. The South Pier the principal berth.</p>
41	Donaghadee	Down	Harbour, 7 acres, enclosed by breakwaters	*Commissioners of Donaghadee Harbour.	<p><i>Single Pier</i>, with outlying sheltering breakwater. Berthage alongside pier 600 feet, with wharf space about 40 feet wide. Depth at L.W. varies from about 12 feet 6 inches at outer end to 6 feet at inner end of berthage. Railway station at root of pier. One fixed 3-ton crane on wharf and one steam crane belonging to Railway Company. Small coal and general trade by steamers and schooners. A small jetty, called Lanyon's Wharf, is situated about 600 feet landwards of root of main pier, and provides about 800 feet of berthage for small boats, with a wharf width of about 20 feet, the whole of which is dry at L.W. This wharf is chiefly used by small boats from the Copeland Islands.</p>

* The Commissioners of Public Works have been appointed Commissioners of the Harbour.

No. on Map.	Name	County.	General Description	Controlling Authority	Facilities for Transport, Remarks, etc.
42	Dunmore East	Waterford	Harbour, 7 acres enclosed by break-water	Commissioners of Dunmore East Harbour.	The pier itself provides berths 380 feet in length with a wharf width of 30 feet, having a depth of 14 feet at L. W. at its seaward end, diminishing to about 6 feet at its inner end. No cranes or goods stores available. Some sheds, privately owned, in connection with the fishing industry have been erected at foot of pier. Quays and pier approachable by good road. Nearest railway at Waterford, about 11 miles distant. Harbour proving increasingly useful for motor-fitted fishing craft. Otherwise used by colliers and trading schooners. About 6 acres. L.W. depth 14 feet to 6 feet, sheltered by the pier. Quay space about 500 feet in length by 30 feet mean width, available at head of harbour, with L.W. depth varying from 6 feet to 6 feet.

* The Commissioners of Public Works have been appointed Commissioners of the Harbour.

(c).—HARBOUR LOANS (1 & 2 Wm. IV. c. 33)

A sum of £595,785 has been advanced to 31st March, 1918, as loans in connection with Harbours and Docks. Of this amount, £33,882 has been remitted from time to time, and £106,175 has not yet accrued due. With the exception of a temporary loan made to Belfast Harbour Commissioners in 1839 of £15,000 (which was repaid in 1841) there is no record of any loan having been made for the Ports of Dublin, Belfast, Londonderry, Cork or Waterford.

The following statement shows the current loans and the principal outstanding at 31st March, 1918.

Harbour.	Amount Advanced	Principal outstanding at 31st March, 1918.
	£ s. d.	£ s. d.
Kinsale*	11,322 15 1	2,702 19 9
Westport	1,800 0 0	592 10 0
Charlestown	450 0 0	248 0 0
Wicklow*	4,596 0 0	3,808 1 8
"	68,000 0 0	51,281 12 9
"	408 0 0	310 10 0
Foyens*	2,000 0 0	1,691 13 4
Galway	28,100 0 0	7,376 17 8
"	8,800 0 0	3,378 8 3
Limerick (commuted)	49,413 18 0	3,687 2 2
Arklow*	20,000 0 0	8,622 12 0
"	3,500 0 0	2,627 9 9
Carrikerferry*	12,000 0 0	4,152 8 3
Trillick and Fenit	95,000 0 0	30,010 15 1
Bahriggan	1,700 0 0	1,260 12 10
Totals	303,516 13 1	121,236 14 4

* With security of local rates, etc.

A. H. Sidwell, Deputy Accountant,
Office of Public Works, Dublin
2nd day of September, 1918.

HARBOUR LOANS (1 & 2 Wm. IV. C. 83.)

The total amount issued to 31st March, 1918, £595,284 18s. 7d. includes the following :—

	£.
Ardglass	11,600
Arklow	23,200
Belfast	15,000
Carrickfergus	12,000
Dundalk	36,000
Drogheda	12,000
Galway	60,200
Kinsale	11,328
Larne	20,000
Limerick	146,560
Newry	42,000
Sligo	37,400
Tralee and Fzalt	65,000
Wicklow	70,000
	<u>£595,284</u>

The amount remitted (£83,832 9s. 4d) is made up as follows :—

Limerick	£83,832 8 5
Galway	5,322 14 10
Ardglass	5,000 0 0
Wicklow	5,000 0 1
	<u>£83,832 9 4</u>

A. H. S. Deputy Accountant,
Office of Public Works, Dublin.
4th September, 1918

SELECT COMMITTEE ON TRANSPORT (IRISH SUB-COMMITTEE).

INDEX to Statements and Letters relative to certain Harbours and a proposed Canal Extension, concerning which no Oral Evidence was taken by the Sub-Committee.

No. I.—GREYSTONES HARBOUR.

- (a) Statements dated 16th September, 1918, submitted by Mr. H. Joseph Evans, on behalf of Fishermen and others, as to the condition of Greystones Harbour PAGE.
(b) Letter dated 22nd September, 1918, and accompanying Supplemental Statement relative to Greystones Pier

No. II.—WICKLOW HARBOUR.

- (a) Statement as to the Development and Equipment of Wicklow Harbour, and particulars of the amount expended on its construction, transmitted on 21st October, 1918, by Mr. Henry J. McPhail, Town Clerk of Wicklow, on behalf of a Committee consisting of representatives of merchant shipping, and other local interests
(b) Estimate of amount required to carry out proposed Harbour Improvements
(c) List of Harbour Loans and Town Rates for Harbour purposes

No. III.—ARKLOW HARBOUR.

Engineers' Reports, as under, submitted on 12th October, 1918, by Mr. James Doyle, Secretary to the Harbour Board :—

- (a) Report, dated 22nd May, 1914, by Sir John Parmer Griffiths, M.Inst.C.E., relative to the South Pier
(b) Report, dated 8th December 1916, by Messrs. Dolap & Waller, Civil Engineers, on the North Pier Head
(c) Report, dated 28th September, 1917, of Mr. J. Chaloner Smith, M.Inst.C.E. Assistant-Engineer to Board of Works, Ireland, on the condition of the Harbour

No. IV.—KINSALE HARBOUR.

- (a) Letter, dated 19th September, 1918, from Mr. P. A. Hegarty, Town Clerk, Kinsale, relative to desired improvements of the Harbour
(b) Statement, dated October, 1911, as to Kinsale Pier Debt
(c) Letter, dated 23rd September, 1918, from Mr. E. H. Leslie, Secretary, Cork, Brandon & South Coast Railway Company, as to the necessity for railway connection with the harbour

INDEX TO STATEMENTS AND LETTERS—Contd.

No. V.—WEXFORD PORT AND HARBOUR.

PAGE

- (a) Letter, dated 8th October, 1918, from Mr. Thos. Routledge, Chairman of the Port and Harbour Commissioners as to the condition of the Port and Harbour and their financial position
- (b) Copy of Resolution, dated 6th April, 1905, of the Port and Harbour Commissioners
- (c) Copy of letter, dated 5th September, 1905, from Mr. Joseph McBride, Secretary to the Port and Harbour Commissioners to the Right Hon. W. H. Long, P.C., then Chief Secretary for Ireland
- (d) Copy of letter, dated 7th December, 1905, from the Right Hon. W. H. Long to Mr. Thos. Routledge, Chairman of the Port and Harbour Commissioners

No. VI.—PROPOSED CANAL EXTENSION TO KILCORMAC, KING'S COUNTY.

- (a) Letter, dated 6th September, 1918, from Mr. P. Scully, Honorary Secretary to the Kilcormac Town Improvement Committee, recommending an Extension of the Grand Canal
- (b) Detailed Estimate of Traffic of the Kilcormac district
- (c) Report of Mr. T. J. O'Sullivan, A.M.I.C.E., County Surveyor for King's County, on the proposed Canal Extension
- (d) Letter, dated 12th September, 1918, from Mr. W. Robbins, Secretary to the King's County Committee of Agriculture, forwarding copy of a Resolution of the Committee in favour of the scheme

L. GRAYSTONES HARBOUR AND PIER.

- (a) STATEMENT by Mr. H. Joseph Evans on behalf of fishermen and others.

Prospect House, Trafalgar Road, Greystones,

18th September, 1918.

DEAR SIR,

In reply to your letter of the 11th inst. a meeting has been held to-day of fishermen and others, and I am directed to submit the following statement as to the condition of Greystones Harbour:—

1. The fishing industry here, which at present can only be carried on with small open boats, could be considerably developed if there was suitable accommodation for larger craft.

2. Winter fishing is practically impossible owing to the present conditions.

3. Formerly the Harbour was able to accommodate several coal schooners owned by local merchants but owing to its deplorable condition it is now useless, and coal has to be brought to Greystones by rail.

4. We beg to point out that between 20 and 30 years ago we understand that a sum of about £25,000 was spent on this harbour, and now in that short space of time no coal schooner or large fishing boat can use it at any time.

The north pier is a complete wreck, in consequence of which the sand and shingle travelling from the north completely fills the Harbour.

5. A portion of the East Pier is gone, and the remainder is not expected to stand much longer.

Yours faithfully,

H. JOSEPH EVANS

P. MacNahy, Esq., Secretary, Sub-Committee Inland Transport, Upper Merrion Street, Dublin.

- (b) SUPPLEMENTAL STATEMENT.

Prospect House, Greystones,

23rd September, 1918.

DEAR SIR,

I beg to enclose a supplemental statement of facts in connection with the Fishing Industry of Greystones, and of the present condition and history of the Harbour now useless. This represents the lines of evidence which the witnesses are prepared to offer.

I should be obliged if you will lay this statement before the Sub-Committee.

Yours faithfully,

(Signed) H. J. EVANS.

P. MacNahy, Esq., Secretary, Sub-Committee on Inland Transport.

GREYSTONES PIER.

SUPPLEMENTAL STATEMENT of facts relating to the above.

Forty-five years ago Greystones possessed only the short granite pier, the remains of which are to be seen. This accommodated coal-schooners which could lie alongside in ample water at low tide. Unloading and loading were carried on by a hand crane fixed on the pier.

The fishermen of Greystones and its vicinity owned and moored about 20 large fishing boats, each of six tons, capable of fishing at a distance and keeping at sea in heavy weather for extended cruises. This industry was for many years an active one, and the source of the growth of the original town on the La Tenche Estate. These boats, requiring about 20 men to haul up ashore, were launched from a narrow steep to shingle beach, which led to comparatively deep water at once.

A number of men carried on hand-line fishing in small boats, then sent out both by day and night, but this has practically ceased. To show how extensive this industry was, it may be mentioned that in one summer's cruise 135 men from the neighbourhood set out together in the local fleet. They returned with £2,500 worth of fish as the resulting catch.

In the year 1886 the present Pier and North Groyne were built under the auspices of the Commissioners of Public Works. So much of the money advanced as was to be repaid by the Grand Jury was met by a specially authorised rate. By Order-in-Council the Harbour and the Pier became vested in the (now) County Council of Wicklow. But for want of provision as regards tidal action and of solidity and strength of construction of the piers the Harbour would have met all the wants of the locality.

The fishing industry would have been fostered and encouraged; vessels could (and until recent years did) come with coal, cement, bricks, and other cargoes to Greystones.

Prosp timber was loaded here for shipping elsewhere also.

Had the Harbour existed as designed and as at first constructed, timber, locally felled, could have been shipped to other places. Building materials, &c., might have been saved the expense of rail carriage.

HOW DO MATTERS STAND?

The narrow stoop to beach is gone, owing to the tidal action peculiar to this bay; the foreshore from Bray Head to Greystones is heap-up at the latter neighbourhood. Even during the work, and without any doubt due to it, shingle and sand, crushing down the north groyne in its march, and piling it as if it were non-existent, have raised a broad sloping beach for hundreds of yards north of the little port.

Thousands of tons of these materials occupy the launching-places of the scummers boats. Where deep water was then near to these last, a boy can wade at low water to the new quay-side to-day.

There is not water in the harbour to launch one of the herring fleet which flourished forty years ago.

No coal or cargo schooners can lie at the quay; the vessels must take the ground at early ebb, and the debris of the decaying pier wall would jump a leak in any bottom with any wind of the sea.

The main pier is going fast, its extremity is separated from the rest by a chasm; it must soon fall away. Large fissures in the masonry show on the outer side, and the floor has been burst up. Carts can no longer pass along it. Mooring bollards have been swept away; the pier is a ruin, the north groyne is worn.

Intended to stay what had been foretold by local opinion, viz., the sifting southwards, it has long yielded to this pressure and has collapsed. Had a more stable construction taken its place and been erected some few hundred yards north of it, extending to twice its length, it is believed that the silt would have been carried past the harbour mouth by the prevalent tide current southwards, so what was intended to be remedial has been altogether destructive.

The fishing industry has been for many years past destroyed. To exemplify this, a local owner, whose grandfather had built many or most of the boats already referred to, built a smaller vessel in the attempt to re-establish herring fishing at Greystones. His venture failed; she could not lie in safety in the harbour, she could not be hauled up or be relunched as in earlier years could have been done. He was forced to sell her at a great loss.

The large number of herrings on this coast during the summer has led the few remaining fishermen to make their only available effort.

With rowing boats, five or six in number, they have set out each evening with most substantial results. Hundreds of pounds worth of fish have been secured, and by means of motor vans they were enabled to get their fish to the Dublin Market within a few hours of landing and in time for the early market.

This work can only be carried out in very fine weather. The boats are hauled ashore each morning enabling great labour and considerable danger. Sailing boats of considerable size could effect a fourfold result. Some fifty years ago four schooners owned by local traders carried cargoes to and from Greystones. Since that time until two years ago there have been always two or three of such class of vessels coming and going with cargoes mainly of coal. The area supplied from this centre extended to many neighbouring villages and districts.

To run up, seaborne traffic to Greystones has become non-existent. A valuable industry—one of great importance to our food supply—hardly exists, while potential plenty offers itself. No commodity has any outlet save by rail.

As an example of the loss to local trade resulting from the present condition of things, the owner of the last locally-owned schooner has been forced to ship his coal to Wicklow, cart it to the railway, pay rail freight to Greystones, and again cart it here.

The only remedies capable of meeting the difficulty are: to dredge out the harbour, restore the main pier, build a north groyne at a more northerly point and projecting beyond the south (main) pier.

II—WICKLOW HARBOUR

Documents submitted on 18th October, 1918, by the Town Clerk, Wicklow.

(a)—STATEMENT RELATIVE TO THE DEVELOPMENT AND EQUIPMENT OF WICKLOW HARBOUR.

A Committee consisting of representatives of merchant shipping and other local interests, specially formed by the Urban Council for the purpose, wishes to place before the Irish Sub-Committee on Inland Transport some reasons why and how, in their opinion, the port and Harbour of Wicklow should and could be utilised in connection with any comprehensive scheme of Inland Transport improvement and general development.

This harbour is situate on the South-East Coast of Ireland about thirty miles south of the port of Dublin, and most conveniently located for Cross-Channel trade with the ports Liverpool, Manchester, Glasgow, Cardiff, Swansea, Ayr, Milford, etc.

It is connected by a tram with the Dublin and South-Eastern Railway which passes through the town of Wicklow, which it directly connects with Dublin, Waterford, Wexford.

The eastern districts of County Wicklow are rich in mineral resources. Silver and Lead mines at Glendalough, distant about twelve miles, were formerly operated on a large scale, and if at any time these operations were resumed the Harbour at Wicklow offers the only outlet for the shipment of the output therefrom.

The same observations apply with even greater force to the Copper, Sulphur and Ochre mines at Ballycaplin. These latter mines at Avoca, Connemara and Ballycaplin are at present being operated in an experimental manner by the Government, and are capable of yielding a big output of ores.

The entire county of Wicklow is largely agricultural in character, yielding great quantities of corn and large numbers of cattle for transport, and if a regular Cross-Channel service with the port were established there is opportunity for considerable development in this class of trade.

Owing mainly to excessive freightage the workings of the above mines were gradually extinguished, being unable to hold their own against Continental competitors. It is to be hoped, however, after the war such handicaps will be removed by the provision of cheaper and better transport facilities. If so, and with other favouring conditions, the resumption of mining activities in the County are reasonably to be anticipated. Should such expectations be realised, Wicklow Harbour, properly equipped for the purpose, would supply adequate shipping facilities.

AMOUNT EXPENDED ON THE CONSTRUCTION OF WICKLOW HARBOUR.

East Pier and Breakwater	£17,000
New North Groyne and Foreshore Protection Works	20,500
New Sea Wall	7,000
Total	£44,500

From the above figures the Sub-Committee will observe that the Harbour of Wicklow has cost the ratepayers the sum of £44,500, being equivalent to a rate of 3s 5½d. in the £, and under these circumstances without Government help it is impossible for the Harbour Authorities to carry out these much needed improvements.

These improvements consist of dredging the Harbour, which has silted up considerably during the past three years. The rebuilding of the quay walls, which are at present in a very unstable condition. Also the provision of Travelling Loco. Crane, and the tramway connecting the harbour with the local Goods Stores requires to be diverted so as to become efficient for the purposes which it is needed to serve.

The total cost of these improvements amount to the sum of £34,000, as per estimate attached hereto.

My Committee respectfully urge on the Irish Sub-Committee on Inland Transport the desirability of recommending the Government to give a grant for the carrying out of these much needed and important works.

HENRY J. MACPHAIL,

Town Clerk.

Town Hall, Wicklow,
18th October, 1918.

(B)—ESTIMATE OF THE AMOUNT REQUIRED TO REBUILD QUAY WALLS, DREDGING, DIVERSION OF TRAMWAY AND PROVIDING CRANE.

Rebuilding Quay Walls	£21,000
Dredging	7,000
Diversion of Tramway	4,000
Travelling Loco Crane	2,000
Total	£34,000

(c)—HARBOUR LOANS.

Luscombe Mortgage Loan	£12,000	0	0
Loan authorised by Wicklow Harbour Advances, Act 1897 (60 & 61 Vic. Chap. 55)	65,000	0	0
Loan authorised by Pier and Harbour Orders Confirmation (No. 3) Act, 1907	5,000	0	0
	£82,000	0	0
Local contributions to supplement Free Grant out of Development Fund	2,500	0	0
Annual contribution towards Foreshore Works	38	6	8
Harbour Loan, 1916	1,000	0	0
	£85,538	6	8

Lisecombe Mortgage now converted into Wicklow (Town) Stock was originally borrowed for Harbour improvements under Treasury Sanction and the Town has been paying principal and interest on £12,000 for over 50 years.

The Town of Wicklow is also charged with £2,500 as a separate item of the £63,000 Loan, and in addition pay the full rate to the Wicklow County Council on the balance, £62,500, to which the five Baronsies of the County contribute.

The £2,500 Loan is charged on the Harbour revenue which if not sufficient is payable by the Town. Also the Town is responsible for a Loan of £1,000, and in addition pays the annual contribution of £33 6s 8d. towards the upkeep of Foreshore Works.

THE TOWN RATES FOR HARBOUR PURPOSES.

	s.	d.
Lisecombe Mortgage	1	6½ in the £.
Special Charge pursuant to Wicklow Harbour Advances Act	4	" "
Rate payable in County Council Demand	2½	" "
Loan pursuant to No. 3 Act, 1907, Principal and Interest, £326 6s. 9d.	1	0½ " "
per annum, equivalent to a rate of		
Principal and Interest on Loan of £1,000, and annual contribution		
towards Foreshore Works	2½	" "
	<u>8</u>	<u>6½</u> " "

Valuation of Wicklow Urban District for Harbour and Public

Health purposes	£6,430 15 0
One penny in the £ produces	£ 26 15 0

The Abstracts of the Accounts of the Wicklow Harbour Commissioners for the past five years will show that there was no surplus revenue available to go in relief of the rates of the contributing parties.

The revenue from Harbour Dues and Tolls is approximately about £750 per annum and decreasing owing to the want of facilities.

III.—ARLLOW HARBOUR.

Engineers' Reports submitted on 12th October, 1915, by Mr. James Doyle, Secretary to Arllow Harbour Board.

(a)—Copy of Report by Sir John Penser Griffith, M.Inst.C.E., on damage to the South Pier.

22nd May, 1916.

To the Chairman and Members of the Arllow Harbour Commission.

SIR,

1. In compliance with your desire that I should visit Arllow Harbour and report to you on the condition of the South Pier, as conveyed to me by your Secretary in his letter of the 28th February, and also by Mr. Charles D. Oliver, M.Inst.C.E. I have the honour to report that I have visited Arllow twice and inspected the damage to the South Pier.

2. Through the courtesy of the Board of Public Works for Ireland and the Department of Agriculture and Technical Instruction I have been able to inspect a mass of documents relating to the construction and maintenance of the present harbour at Arllow. Mr. Oliver has also been of great assistance and has furnished me with some of the latest information obtained by the aid of a diver.

3. I am also greatly indebted to Mr. T. M. Bouchon, M.Inst.C.E., the Chief Engineer of the Board of Works, and his Assistant Engineer Mr. John C. Smith, M.Inst.C.E. C.I., for placing at my disposal much information in their possession and the reports of the examination of the South Pier made last September by their diver.

4. To assist the Board in coming to a clear understanding of the cause of the damage and the steps which I consider necessary for them to take to save the pier from further injury, I would refer briefly to the history of the present South Pier.

5. The South Pier was constructed under the powers of the Arllow Harbour Act, 1882, and under the direction of the Board of Public Works, and the supervision of their Chief Engineer, the late Mr. Robt. Manning, M.Inst.C.E.

6. In December, 1882, a contract was entered into with Mr. E. MacDonald, of Faurie, Greenock, for its completion by the 31st August, 1885, at a cost of £26,451.

7. The work proceeded slowly, and the winter storms of 1884-85 did considerable damage to the seaward end of the unfinished pier by scouring away the sand from under the foundation blocks. This was followed by considerable settlement and displacement of the block work.

8. At the time of the damage the pier had been carried some 335 feet seaward from the root of the pier, which is marked by the line M-N on the accompanying plan. In consequence of this damage it was decided to lay a layer of rubble over the site of the remaining portion of the pier still to be built, extending 40 feet beyond the footing of the seawall and 30 feet beyond the footing of the harbour or wharf wall.

9. In 1886, in consequence of some settlement in the foundations of the wharf wall, due to an extraordinary flood in the *Avon* River, it was decided to protect the footing still further by an apron of bags filled with concrete. The apron along the wharf wall was completed in January, 1888, and the whole of the works constructed by the Board of Works under the Arklow Harbour Act were transferred to the Arklow Harbour Commissioners on the 18th of February, 1888.

10. In December, 1889, Mr. Manning visited the harbour and found that the Harbour Commissioners were actually breaking up and removing portions of the apron in front of the wharf wall. An official remonstrance was addressed to the Harbour Commissioners through Mr. Taylor, the then Treasury Representative on the Harbour Board, and in March, 1890, Mr. F. J. Dick, the Assistant Engineer of the Board of Public Works, visited the harbour and found that 15 bags of concrete for protecting the footing of the wharf wall had been lifted, representing some 40 feet in length of footing protection removed. From Mr. Dick's report, and also from a recent examination by a diver, it is clear that the position of the most serious damage to the wharf wall of the South Pier corresponds with the position from which the bags of concrete were removed by the Harbour Commissioners.

11. I have no evidence that the Commissioners removed more of the apron than reported by Mr. Dick, but they do not appear to have taken any steps to restore the apron. On my first visit I must confess to having been somewhat puzzled by the settlement which had taken place, but the documents which I subsequently had the opportunity of examining, together with the confirmation by the examination of the diver, left no room for doubt as to the cause of the damage.

12. For the first 100 feet the South Pier blocks were laid on the rubble débris of the old pier destroyed about the year 1877, and beyond that for some 200 feet the blocks were laid on the sandy sea bed. It was at this latter portion of the work that settlement was noticed in 1886, which led to the adoption of the apron of concrete bags. When a portion of these was removed the wharf wall was again exposed to the same danger of settlement, and all the evidence that I have received points to a certain amount of settlement having taken place some years ago. I am informed that it was very greatly increased by the extraordinary flood in the river in the autumn of 1916.

13. The cause is simple and is the result of forces which are now thoroughly understood. The portion of the damaged wall occurs at the point at which the river water impinges on the South Pier, the direction of the pier lying athwart the stream and altering its course. This has the same effect as a bend in a river. The river water being checked in its course and its direction altered is raised in level, with the result that its increased head produces a transverse current which sweeps out the sandy bed and forms a trench at the foot of the wall, into which the bottom bricks of the wall drop and finally slip forward. This action may of course be very general, except when a heavy flood occurs. The hole formed will from time to time fill up by the flow of sand from under the neighbouring structure, and the fact that considerable settlement has been noticed to the westward of the steps shows that the sand has been washed in from under the débris of the old pier on which the first portion of the South Pier was founded. That greater damage has not been done is due to the presence of this rubble débris and the rubble filling behind the wall used in filling the space between the wharf and the seawalls underneath the concrete quay surface. As the sand has been washed out, this rubble has settled and taken its place. The evidence of this settlement is obvious in the subsidence which has occurred in the concrete quay surface.

14. The heroic method of repair would be to open the work, remove the superstructure, and raise and reset the block work. I cannot recommend the Harbour Commissioners to undertake this and would advise them to be satisfied by securing the wall so that further settlement may be prevented and the work made sufficiently secure to fulfil its function as a breakwater and a directing wall for the river flow. If it was a wall intended as a quay for vessels undoubtedly some other course would have to be adopted. The South Pier wharf wall was not however intended or designed as a quay, and therefore although the wall at this point will always remain somewhat unsightly, yet I cannot recommend the Commissioners to go to the expense of its reconstruction.

15. I beg, therefore, to point out the steps which I consider necessary to stop further settlement and the danger of collapse of the portion of the wharf wall. The first step is to restore the apron in front of the wall where it was removed, and the question to be decided is how can this be done in the most effective manner and so as to minimise the risk of damage to vessels which may touch the bottom at this point, for it must be admitted that this is the point at which vessels both incoming and outgoing are most inclined to strike. It is the point at which a vessel has to alter its course, whether entering or leaving the port, and at which the deepest water hugs the apron of the pier.

16. Two courses suggest themselves. First to restore the apron by bags filled with concrete as in the original design, or secondly to fill up the gap with rubble stone to the level of, say, 9 or 10 feet below low water level. This is the course I recommend. The bulk of the stone should not be less than one hundred-weight and the interstices should be filled with smaller stones so as to form a fairly smooth surface. It is obvious that if this is carefully done vessels will be no worse off than they are where the concrete bags exist to the eastward of the damage, or where the rubble débris of the old pier lies in the river to the westward of the steps. In the diver's report mention is made of some of the apron blocks having moved forward. If gaps exist between these and the footing blocks of the wall I should recommend the space to be filled with rubble.

17. The restoration of the apron in the manner described is the most urgent part of the work. Until this is done it would be absolutely useless to attempt any repair to the wall itself. One great advantage in the use of rubble stone is that if there is any further tendency to scour out the sandy bottom at this point over at the outer toe of the footing, the rubble will immediately fall into the hole and cut off further action.

18. As soon as the footing is secured the filling up of the open joints can be proceeded with. The work can only be done by divers and will necessarily be expensive. I would suggest that the larger openings be filled with concrete in small bags of a size which can readily be handled by the diver and built into the openings, beginning with the lowest joints which can be reached. The bags must be prepared to suit the particular openings from measurements obtained by the diver. In narrow or tapering joints, where the bag work cannot be properly used for filling the more remote portions of the joints, I would suggest the use of small quarry chippings, which could be easily lowered down on trays to the diver who would tamp them readily with a rammer into the joints. The outer portion of the joints should be closed by suitable bolsters or bags of plastic concrete made to suit the joint. The advantage of using the quarry chippings is that they can be manipulated under water without injury, whereas any attempt to fill up these narrow joints with cement

mortar or concrete would lead to the washing out of the cement, leaving only sand or gravel. The chippings can be rammed well in place, and could not escape if the joints are properly closed with a concrete bolster. The blocks will thus be solidly supported, without fear of further movement.

19. As regards the settlement in the roadway of the pier, I would suggest that little be done to it until it proves an obstruction to traffic or dangerous to pedestrians. The paring between the coping and the concrete surface in the neighbourhood of the damaged portion of the wall might be filled up with concrete.

20. It has been suggested that the dredging done in the channel may have been the cause of the damage. I have very carefully examined the dredging returns and the soundings made from time to time since the dredging was begun, and have had the opportunity of examining the very intelligent Master of the dredger. I am quite satisfied that the damage to the South Pier cannot be attributed to the dredging operations for the improvement of the channel.

21. About 25 feet from the end of the pier a block is reported as missing in the third course below low water. Although it seems likely that this was displaced several years ago, yet I think it would be desirable to try and close it up with concrete bag work.

22. My attention has been called to the projection of the old North Pier head known as "The Cemetery" which projects into the channel near the foot of the North Quay. It has been said that it acts as a break-water to the run of the sea up the channel along the North Quay. From this point of view it may have some advantage but it undoubtedly seriously narrows the channel at a critical point, namely where vessels have to alter their course when either entering or leaving port. I have been informed that a large quantity of stone projects into the channel even to the southward of what appears above water. If this is the case I would advise the Commissioners to endeavour to have this obstruction reduced.

23. As the deep water is close to the footing apron along the South Pier, vessels of deep draft are naturally drawn towards this footing course and have little to gauge their distance from it. It had occurred to me that leading marks showing the centre line of the navigable channel would be of great assistance in keeping vessels clear of the footing course. They would be similar, but ought to be more conspicuous than the poles marking the north and south sides of the channel which were erected for the guidance of the dredger in its work.

24. The cost of doing the work referred to in this report must necessarily be high for the amount to be done, as it has to be almost all done by divers. I estimate the expenditure at about £850 inclusive of diving gear.

Your obedient servant,

JOHN P. GRIFFITH, M. Inst. C.E.

22 May, 1916.

ARKLOW HARBOUR REPAIRS. WAGES OF WORKMEN.

	Per Day.	Per Week.
	£ s. d.	£ s. d.
Diver	3 0 0	12 0 0
Diver's attendant	6 s	2 0 0
Pump men, two at	5 0	3 0 0
Labourers, three at	5 0	4 10 0
Foreman	-	4 0 0
Total		£25 10 0

It is probable that this gang could complete five lineal feet of filling joints per day, or from 25 to 30 feet per week, costing, say £1 per lineal foot of joint.

ESTIMATE.

Rubble footing in place, 150 tons at £1 per ton in place	£150
Filling joints with bags of concrete and quarry chippings	400
Materials for filling joints, sackings, cement, gravel, sand, quarry chippings, staging and tools	200
	750
Contingencies 10%	75
	£825

(3).—Copy of Report by Mr. Alfred D. Delap, M. Inst. C.E., on North Pier-head.

Northern Bank Chambers,

115, Grafton Street,

Dublin.

December 8th, 1916.

The Secretary,
Arklow Harbour Commission,
Harbour Office,
Arklow.

NORTH PIER HEAD, ARKLOW.

DEAR SIR,

In accordance with your instructions contained in your letter of November 15th, and in previous correspondence, we made our underwater inspection of the Arklow North Pier-head yesterday, and beg to report as follows:—

We got into communication with your Engineer, Mr. Oliver, and obtained from him very full information as to the conditions so far as they could be ascertained from above water, and also a clear idea as to the points which our under water inspection was required to clear up.

We understand that the points on which information was to be obtained were, first, the condition of the timber work; second, the condition of the concrete work; and, third, the level of the bottom of the concrete work relative to the present level of the bottom.

We understand from Mr. Oliver that the present level of the bottom is very considerably lower than it formerly was, having been greatly lowered by the dredging of the last five or six years, but that its present level is not by any means as low as it has been, the storms of this autumn having to some extent raised it again.

The present conditions are not, therefore, as favourable as they might have been for getting information on the third point, i.e., as to the depth at which the original course of blocks was laid, and we would suggest that if further dredging should be carried out, and if that or natural causes should lower the sand level to any considerable extent, a further inspection would be desirable, and positive information on this point might be obtained.

The necessity for positive information on this point, as will be seen, depends on the method your Commissioners adopt to make the work secure, and we are of the opinion that unless either dredging or natural causes are expected to lower the bottom at this point to a very considerable extent, that no further information will be necessary beyond what is contained in this report.

First, as to the condition of the timber work.

We found at once that all the timber work, which is pitch-pine, is very badly eaten away by worm from quite close to the average water line down to the present sand level. At one level, some 5 feet over present sand level, this erosion is decidedly worse than lower down, many of the piles being eaten practically right through at this point, and from what Mr. Oliver calls in this corresponds with the former sand level; but, apart from this particular section, the whole piles down to sand level are eaten away very badly, both by the small worm *Limoria* Terribilis, which attacks exposed surfaces only, and only as a rule goes down to sand level, and by the large ship worm *Teredo Navalis*, which attacks the heart of the timber and will go down in the heart of the timber far below the level of the bottom.

Since the lower 5 or 6 feet of these piles has only been exposed by the sand for the past few years, and as *Limoria* has done a very great deal of damage on this part of the piles, we conclude that much of the damage caused by both worms has been quite recent, and that their activity has greatly developed in the last few years.

It is quite clear that as things are now no ordinary timber in this neighbourhood can be counted on to have a long life below water, and it is equally clear that the timber at present there has practically reached end of its effective life.

Secondly, as to the condition of the concrete work.

The concrete work of the pier proper can only be reached through the interstices of the timber sheet piling, and could not be reached at all except for the erosion of the piles which has to that extent widened these spaces. In so far as could thus be ascertained this concrete is in perfect order, the face clear and hard, and apparently no appreciable settlement has taken place.

The shoeing course where present, and the toe of blocks beyond the end of the pier itself, is composed of large blocks put in at random, these are at all angles and levels, some of them are broken, and they are quite irregular in every way. It is probable that they have been placed anyhow on the bare surface of the sand and have been allowed to settle into any position as the sand beneath them scoured out.

Thirdly, as to the level of the bottom of the concrete of the pier proper relative to present sand level.

To ascertain this we very carefully probed with an iron bar between the sheet piles to the face of the concrete, and followed this down to the sand level, and as far below it as one can be sure of results. With the exception of one doubtful point, to which we will refer later, we satisfied ourselves that at all points the concrete blocks go down to at any rate 6 inches below the present sand level, and did not end there. With the sand at its present level it is not possible to say how much further the blocks may go down, and as will be seen from our conclusion we do not think that until considerable further deepening of the water at this point is anticipated any further information on this point is necessary.

As regards the doubtful point mentioned above, this is about half-way across the end of the pier-head where the shoeing blocks have settled away from the pier, leaving a V-shaped crevice into which it is possible to slide, but which is too narrow to allow of stooping when counteracted by the diving gear. Here we were able to follow down the face of the block work of the pier to sand level, but a few inches below this apparently the face ceased, and it may be that this was the lower limit of the block, but owing to the extreme difficulty of movement it was not possible to ascertain whether this was only due to some accidental joint of fracture of the block or its true lower edge.

We take it that the whole object of this report is to enable a decision to be come to as to what work is necessary to make the pier-head quite secure.

In our opinion there is no fear of settlement or failure unless or until the present bottom level is lowered, as of course it may be by dredging or by natural scouring away of the sand. We believe that even if very considerable deepening is contemplated or anticipated that the whole of the structure can be made quite safe by comparatively simple and inexpensive protection, such protection taking the shape of a rubble mound deposited and maintained in such a manner as to insure the bottom level remaining along-side the pier at its present level.

Heavy angular rubble should be tipped all round the pier-head in a bank that need not extend more than 10 to 12 feet from the face of the structure, and its interstices filled with smaller stones. This will not interfere with navigation, and if stones of not less than 5 to 5 cwt. for the heavy rubble and of $\frac{1}{2}$ to 2 cwt. for the smaller stones be used there will be no fear of these travelling to where they will cause obstruction. The crevices and spaces between the pier proper and the shoeing blocks, and those between the shoeing blocks themselves, should all be filled and kept filled with suitable sized angular stones.

The timber dolphin or platform over the mass of blocks at the end of the pier will, of course, shortly go, as the destruction of the timber is a matter of a comparatively short time, and some protection here will be required to keep shipping off this point.

The course that would in our opinion be of the greatest possible service to the Port would be to extend this North Pier till it overlapped the South Pier, and finish it with a proper head and light, but as we presume this is not immediately practicable we consider that some structure moderate in price which would not interfere with future extension would be the right thing to adopt for the present needs.

It is probable that a structure composed of 3 or 4 reinforced concrete piles, driven deeply into the bottom, just beyond the end of the random blocks, braced strongly above water level, and properly fendered to protect shipping, would be the cheapest and best that could be adopted.

A light could be carried by this, and it could be reached from the present pier-head by a light gangway.

We trust we have in this report fully covered the points which your Commissioners wished us to investigate.

We are, Sir,

Yours faithfully,

DELAZ AND WALLER.

(Signed) ALFRED D. DELAZ.

(c).—Copy of Report, dated 25th September, 1917, by Mr. J. Chaloner Smith, M.Inst.C.E.I., Assistant Engineer, Board of Works, Ireland, on the condition of Arklow Harbour.

THE ENGINEER.

As directed, I proceeded to Arklow, and upon the 24th, 25th and 26th instant was engaged in taking soundings and in making a diver's examination of the wharf wall foundations of the North Groyne and the South Pier, where some recent damage has been reported to have occurred by the Department of Agriculture, and beg to report as follows:—

NORTH GROYNES

A close and careful examination by the diver of the whole length of the wharf footings shows that at no point has there been any undercutting. At no point when probing with a bar was he able to discover the bed of the foundation blocks, so that it may be taken as certain that these blocks and the sheet piling have been set and driven at the least to the levels indicated on the working plans of the late Mr. Barry, who was the Engineer for the construction of the North Groyne.

The diver reports that the whole half sheet piling around the groyne-head and the whole half piles in the timber dolphin which covers a mass of pellimed blocks and rubbles thrown in to protect the groyne head from scour are considerably eaten by the worm and wasted below the level of low water. In no case could he find any exposure of the pile points, and in my opinion the movement of these piles which can be seen is due to the defective state of the wallings and straps, which should hold their heads securely but which do not do so. From the west side of the north face of the groyne-head there is a length of about 10 feet of these whole half sheet piles gone altogether.

The diver reports the half half sheet piles along the wharf face of the groyne to be in much better condition than the whole half piles in the head, but here again the top walling is defective and does not hold the pile-heads secure and allows them play. Further, a length of about 37 feet of this half half sheet piling has been badly carried away, upper walling and all, by a blow from a steamer some considerable time ago, leaving the sheet piles and wallings at either end of the gap adrift, so that the ebb and flood runs can get in behind the sheeting and scour away the sand foundation.

Since I last saw this groyne in March, 1916, a very considerable quantity of rubble has been deposited from barges along the south face outside the sheet piles. But little or no attempt seems to have been made to deposit this rubble to line or level, so that it lies piled in heaps as thrown out of a moored barge in some places, and leaving gaps between where there is practically none.

Rubble enough has been deposited to make a good and efficient protecting apron all along the face, but owing to the manner in which it has been deposited fully one-third of the length of the face derives no protection from it whatever.

Under the circumstances the slight opening of the joint between the solid head and the wharf portion is not to be wondered at.

All that seems to me to be necessary in this case is to renew the sheet piling where it has been carried away, renew the wallings of the top walling so as to prevent the awaying of the pile tops in the current, and to level off the irregularities in the deposited rubble, either by spreading the present heaps or depositing fresh material in the hollows.

The north side of the groyne and sea face of the head are protected all along by a heavy apron of large blocks pellimed and rubbles, so that there is not much likelihood of any undercutting along these lengths.

The timber jetty or dolphin at the head is merely to cover the site of the pellimed blocks lying off the head of the groyne. The stability of the groyne in no way depends upon it, and it is there purely as a warning and a convenience to vessels. If the pile-heads were properly secured to efficient wallings it would probably have many years of life yet, even allowing for the worm-eaten state of the piles.

Even so matters are in the case of the North Groyne I do not consider that there is any probability of its collapse either in the near or remote future.

As to the proposed extension of the North Groyne, it should be understood that this would form a new work pure and simple, not in any way called for by the condition of the present North Groyne. It is further a question needing to be dealt with with the utmost care, as any extension seawards of the groyne would almost certainly have the effect of diverting heavy seas up the river which now run past its head and spend themselves on the beach to the north. It was on this account that the North Groyne was stopped in its present position. If in the interests of shipping it is ever considered desirable to extend it it should be extended as an open structure.

SOUTH PIER.

Some damage which may become serious has occurred to the wharf wall of the South Pier a short distance seawards of the first flight of steps near the pier root. The large concrete blocks forming the wall between the bottom and a little above mean tide level have dropped down through undercutting, and forward for nearly 2 feet, and separated from the concrete in situ wall above them. In fact, the settlement has

caused a layer of the concrete in situ to be fractured and dragged down with the blocks. A length of about 80 feet of the wharf wall is thus damaged at present, but it is probable that other lengths may be damaged in the same way unless steps are promptly taken to prevent it.

The cause of the damage is briefly as follows:—

Before the pier was completed originally in about 1887 there was a protecting apron of bag blocks, 3 feet by 4 feet by 2 feet, laid as a protection from scour against the lowest or foundation blocks, and this apron was carried right round the pier on the sea, head, and wharf sides.

Owing to the constant dredging which has been carried on in the channel for some years past, and perhaps to some extent owing to exceptionally heavy floods in the river, some lengths of the protecting apron have been undercut, and forward away from the wharf wall blocks and broken up in some cases or just tilted up in others, but in both depriving the wharf wall foundations of their protection. Heavy scouring goes on where these fallings down and forward shifts of the apron have occurred, owing to the strong ebb and flood currents eddying and swirling in the hollows thus formed, which results in the undercutting and displacement of the blocks of the wharf wall itself.

In other places the outer end of the apron is undercut, but it has not yet dropped down and uncovered the wharf wall blocks, although this might very shortly occur.

Thus the foundation blocks under the seaward flight of steps are badly undercut now, but have not yet dropped down.

Going seawards at a point about 80 feet seawards of the Mark M.N. at the pier root the apron is broken up for a short length, and the foundation blocks of the wall have slid forwards about four feet. Between 96 feet and 128 feet seawards of M.N. occurs the worst settlement previously described. At 180 feet seawards of M.N. a short length of the apron has been undercut and it has tilted and slid away from the wharf wall, but the latter has not as yet been undercut.

At 214 feet from M.N. there is a slight disturbance of the apron through undercutting and the same at 250 feet from M.N. At 262 feet the apron has been undercut for a short length and dropped 2 feet below its average level and become more or less broken up.

At 320 feet seawards of M.N. the apron is all right, but there is incipient undercutting of its outer end which extends to 370 feet.

At 382 feet from M.N. there is a drop down and fracture of about 5 feet of the apron, which uncovers the foundation blocks of the wharf wall, and at 430 feet from M.N. there is an almost similar drop down and fracture of the same size, also uncovering the foundation blocks of the wall.

At 426 feet from M.N. there is an 8-foot wide gap in the apron, also uncovering the wall foundation, and from this point onwards round the head the apron appears all right.

At 560 feet from M.N. one of the blocks of the second course, about 4 feet 4 inches by 3 feet 3 inches by 8 feet, is missing having been probably started out of its place by some storm, and it must be lying somewhere near by, probably embedded in the sand. The diver looked for it but could not see it anywhere, but it should certainly be found and removed as it might be dangerous if it was lying in the fairway. The diver reports that the earth left by the block did not look as if it has been swept out very recently. I was not able to send the diver all round the pier-head and sea side on account of the heavy run, but from what he was able to see and from what could be seen from above the head and sea wall blocks appear to be all right.

In the course of years the rubble bearing of the South Pier has settled down and consolidated, leaving a void between its upper surface and the underside of the wharf pavement. The wharf pavement, however, shows signs of dropping down into the hollow and of breaking up, probably helped by the weight of heavy water falling upon it in storms.

Generally speaking, the wharf wall, except at the bad place near the first steps, is true to line and better, but at the bad spot the cope arms have undoubtedly moved forward a little and no time should be lost in its repair.

The damage to the wharf wall, so far as I can learn locally, is not new but has been going on for years, but the heavy river flood in August last made it a little worse. The Secretary to the Harbour, Mr. Doyle, told me that the damage at the first flight of steps, the worst place as yet, had been there for years and this was confirmed by the boatmen, who said it had been there for years but that the August flood had made it a deal worse.

The main cause of the damage, apart from the effects of exceptional river floods coinciding with exceptionally low tides, which in any case must be a rare chance, is undoubtedly the continuous dredging in the channel which has gone on for years up to May last, undermining the protecting apron and destroying it in places.

If the apron had not been put in originally I have little doubt but that the dredging and scouring combined would have brought down a very considerable length of the wharf wall of the pier.

The depth for the channel as shown on the plan of the D.A. and T.I. for their Arklow scheme is 9 feet at L.W.O.S.T., and the limit of the channel is shown 25 feet away from the South Pier wharf wall.

Owing to the dredging the depths at present 30 feet out from the coping of the South Pier Wharf range from between 11 and 12 feet below L.W.O.S.T., and exactly opposite the bad break at the seaward steps the depth 30 feet out from the cope is 15 feet below L.W.O.S.T.

Along the centre line of the channel opposite the South Pier and all along the length the depth is 13 feet below L.W.O.S.T., or 4 feet more than was originally contemplated.

All the damage which has occurred so far, either to the North Groyne or the South Pier, is in my opinion due to the neglect of the Harbour Board to maintain the existing works and also from the channel being kept dredged out to a greater depth than was consistent with their safety.

(Initd.) J. C. S. 28.9.17.

N.—KINSALE HARBOUR.

(a)

URBAN DISTRICT COUNCIL OFFICE,

KINSALE, 13th September, 1918.

DEAR SIR,

The Urban District Council and the Harbour Commissioners of Kinsale understood that your Committee are taking evidence in connection with the development of the South Coast Fisheries, and they wish me to ascertain whether an opportunity will be afforded them of putting before the Committee some facts in connection with the neglected state of the Fisheries off this Harbour owing to the want of Government assistance.

The wants are many and would include the provision of up-to-date fishing vessels and gear, the extension of the Railway to deep water—it is at present placed on the top of a hill and a mile away from the quays—the extension of the Pier head so as to provide a deep water berth, the Dredging of the Harbour and the improvement of the water supply for curing mackerel, etc.

I enclose a statement in connection with the Kinsale Pier Debt which may interest the members of your Sub-Committee.

Yours faithfully,

(Signed) P. A. HEGARTY,

Town Clerk & Secretary Harbour Board.

The Secretary,

Inland Transport Sub-Committee, Dublin.

(b)—KINSALE PIER DEBT.

Legislative provision having been previously made for the creation of a Pier at Kinsale, the local Bodies took up the project in the early Eighties with a view to developing the fishing industry which was then at its height.

The Board of Works accepted a tender of £13,879 for the erection of the Pier and estimated that the purchase of private rights would absorb £3,176 and incidental expenses £1,000, making a total cost of £18,055.

This amount was to be made up by a Treasury Grant of £7,500, a contribution of £3,000 by the Harbour Board out of accumulated funds, a loan of £6,500 at 5 per cent., repayable in 25 years, and the estimated balance of about £1,000 was secured by the Joint Bond of the Town and Harbour Commissioners for that amount and any further sum that might be required for the execution of the work.

The Contractor got into financial difficulties at an early stage of the work and was unaccountably released by the Board of Works, who then carried out the work for some time but eventually handed it over to another Contractor. The work was allowed to drag along for more than six years and the Pier was not handed over completed until June, 1883, though the Harbour Commissioners were obliged to make payments for principal and interest at foot of the loan as from 1883, besides losing the increased revenue that would have been made by the Pier. From 1885 to 1889 during the progress of the work the Harbour Board paid £1,390 for interest alone, they in one year (1887) paying £648 4s. 5d. for principal and interest.

When at length the work was completed, the Board of Works presented a bill for £21,852 15s. 1d.—that is, about £3,500 in excess of their final estimate—but declined to give any particulars as to how this figure was arrived at, and it was not until 1895 that the Parliamentary Representative extracted same as follows:—

Cost of Works	£16,931	8	5
Compensation to private persons	3,666	13	1
Superintendence	628	9	1
Preliminary expenses and litigation with second Contractor	435	4	6
	£21,852	15	1

As regards these items it should be noted that—

- (1) The increased cost of building was due mainly to the unexplained release of the first Contractor's services by the Board of Works.
- (2) The £3,666 was paid voluntarily by the Board of Works for private rights which the Harbour Commissioners' Valuer with local knowledge placed at £615.
- (3) The cost of the litigation with the second Contractor might have been avoided.

The Harbour Commissioners declined liability for this wastage and for some years devoted their energies to extracting some explanation from the Board of Works, but the latter could not or would not account for the mismanagement whereby the excess was caused beyond a sum of £831 alleged to be spent as necessary extras, leaving a sum of about £2,800 lost on the work through the incompetence of that Board, apart from the losses incurred by the delay in completing the work.

After deducting the Treasury Grant and the Harbour Contribution, the Local Bodies had to face a liability of £11,352 15s. 1d. instead of £7,500 (that is £6,500 on the Harbour and £1,000 on Town and Harbour jointly). In 1885, when the first repayment was made, the gross Harbour Revenue was £237. Owing to the failure of the fishing industry, it gradually declined until in 1889 it was only £400. The Harbour Board then found itself unable to meet even the interest on the large debt that was run up against them. Instead of lightening the burden, the Board of Works started legal proceedings in 1891, and Shylock-like sought to enforce the letter of their Bond against the Town Commissioners and make them liable for the entire deficit of the Harbour Revenue instead of the £1,000 originally contemplated.

In 1891 a mandamus was obtained against the Town Commissioners compelling them to strike a Special Rate of 2s. in the £ on the town to meet the deficit, and in 1892 a Receiver was appointed over the Harbour Revenue. The Receiver was retained up to the year 1906 and a Special Rate still continues.

About the same time the Harbour Board in order to meet the liability, obtained at great cost, a Provisional Order to increase the Harbour Dues, especially on fish, with the result that while it gave a temporary increase in the Revenue, it hastened the decay of the fishing industry. It came into operation in 1892, after which the gross annual Revenue rose to over £900, but the amount subsequently declined and the average for the last five years did not exceed £525.

About 1890 the rate of interest, 5 per cent., was reduced to 4 per cent., and in 1897 a long-delayed instalment of justice was at length given when a sum of £1,000 was wiped off the debt and period of repayment extended by ten years.

Under the Local Government Act, 1902, the Urban Council got a remission from the Local Taxation Account of half the excess of the Special Rate over 6d. in the £. Taking the average Special Rate paid by the Town (1s. 6d. in the £) as an example the refund would be nearly equivalent to 6d. in the £—about £190 net on that basis.

Since the first repayments were made in 1885 the Harbour and Town have paid altogether £14,513 for principal and interest at foot of the original loan of £11,352 15s. 1d. (since reduced to £10,352 15s. 1d.)

and they also paid for Receiver's fees and law costs about £1,000. Yet a sum of £4,338 is still claimed by the Board of Works as the unpaid balance of the loan, though the Harbour and Town have thus paid £14,313.

The annual principal to pay this off in the remaining 14 years is £336
The present interest at 4 per cent. on debt is £173

Total for one year £509

To meet this the average surplus from the Revenue made in the Harbour for the past five years and paid to the Board of Works has been £270, but as the Revenue has been steadily declining and the present year is the worst on record owing to the total failure of the fishing industry, we cannot count on a bigger annual Harbour surplus than £150, leaving a sum of about £329 to be met by the town rates, some, after taking into account the refund from the Local Taxation Account, involving an average rate of about 1s. 6d. in the £. The Harbour Revenue is in a precarious state this year. The revenue from all sources during the nine months ended September, 1911, amounted to only £304, as against £444 for the corresponding nine months of the previous five years, showing the large deficit of £140, and unless some relief is speedily given the Local Bodies will be unable to meet their annual liabilities in respect of the loan.

Owing to the continued failure of the fishing industry the town is in a most impoverished state. There is no other industry to speak of. The taxable capacity is so low that sufficient revenue cannot be obtained to carry on necessary works in the district. During the summer months the town is without water—involving great danger to the public health and much hardship on the inhabitants. The housing accommodation of the working classes is most deplorably bad and the sanitary state of the town very deficient, resulting in a high death rate from consumption. These matters are constantly reported by the Local Medical Officer of Health and the Medical Inspector of the Local Government Board. The most urgent need is the water supply, the want of which also militates against the town as a military station and sea-side resort, but the Urban Council cannot face the situation while oppressed by the incursions of the Special Pier Rate.

The Local Bodies, therefore, seek some relief from the crippling and unjust burthen of the Pier Debt. They consider that as at least £5,000 was unjustifiably squandered by the Board of Works, and only £1,000 tardily remitted, the other £2,000 ought to be wiped out now, and the remaining £1,338 extended over a longer period at a lower rate of interest. Their object is to reduce the annual payments for principal and interest to a lesser sum than the £150 (Harbour surplus, so as to free the town from the Special Pier Rate (whereby a sum of about £5,485 has been extracted from the ratepayers), and to give the Harbour Board a small margin to combat the accumulation of mud which has rendered some of the river within the Harbour useless, to remedy the present defective berthing accommodation or to lighten the most oppressive dues. To attain this the following concessions would be required:—

- (1) The reduction of the debt by £2,000 (from £4,338 to £2,338).
- (2) The reduction of the present rate of interest of 4 per cent.
- (3) The extension of the present period of repayment (14 years).

TOWN AND HARBOUR OFFICERS, KINSALE,
October, 1911.

(6)
COKE, RANDON AND SOUTH COAST RAILWAY,
SECRETARY'S OFFICE, COKE,
September 23rd, 1912.

The Secretary,

Irish Sub-Committee to the Select Committee on Inland Transport,
Agricultural Department Buildings, Upper Merion Street, Dublin.

Sir,—I am directed to represent to your Committee the necessity for improving the port of Kinsale by extending the Railway down to deep water, and thus developing the Harbour and the fishing industry.

The present station is on top of a hill more than 150 ft. above the quay level, and is approached by a very steep hill, up and down which all traffic has to be carted.

In the year 1883, plans for the extension, approved by the Kinsale Harbour Commissioners, were lodged with the Privy Council, but as there was then no prospect of getting the entire of the estimated cost of £33,000 as a free grant, the scheme had to be abandoned.

The cost now would probably be double the amount named, but in order to develop the Port the Extension is absolutely necessary, and my Directors trust that your Committee will recommend the necessary funds for it being granted by the Government.

I am, Sir,
Your obedient Servant,
(Signed) E. H. LESLIE,
Secretary.

V.—WESTPORT PORT AND HARBOUR.

(a)

WESTPORT LODGE,
WESTPORT,
28th October, 1912.

DEAR SIR,—I regret the Members of the Inland Transport Committee who have been seeing some of the Ports and Harbours in the West of Ireland with a view to their development were unable to inspect the Westport Port and Harbour; therefore, on behalf of the Harbour Commissioners, desire to place the following facts before them in the hope of obtaining some financial assistance so as to enable the Port and Harbour, which is of very considerable assistance to those in the district and surrounding area, to be kept open.

Under the Westport Port and Harbour Act, 1853, Commissioners were appointed to act and have continued since, and the tonnage of shipping to Port, which in 1854 amounted to 6,728 tons, increased to 25,027 in 1891, and during that period the Commissioners expended £33,332 upon new works and improvements, in addition to carrying on the ordinary maintenance of the Port and Harbour, and this also increased the draught of water for vessels lying alongside the Quay from 10 feet to 15 feet of water. The revenue derived averaged nearly £2,000 a year for the greater portion of that period. From 1893 to 1914 inclusive the average yearly tonnage to Port amounted to 25,000 tons, which for the years 1915, 1916 and 1917 dropped to 4,655 tons. The average revenue from 1893 to 1914 amounted to £2,000, and for the past three years this has dropped to an average of £644, £387 only for the year 1917, and in the current year it is estimated not to exceed £250. During the period from 1893 to 1917 inclusive, the Commissioners expended £11,150 on new works and improvements, in addition to carrying on the ordinary maintenance of the Port and Harbour, to which amount has to be added £32,332 expended between 1854 and 1891 inclusive, making £43,502 in all. The Port and Harbour are indebted to the Board of Works and to the Bank of Ireland for considerable sums advanced by them to enable the work of the Port and Harbour to be maintained, and our borrowing powers under the Act of Parliament are now almost exhausted.

The working expenses in connection with the Port and Harbour have been cut down as far as possible for want of funds, and our dredger has not been able so to be worked for the past three years, which has had a very serious effect on the Port and Harbour and Channel leading thereto, both of which are gradually getting silted up. The services of the Harbour Master and another hand have had to be dispensed with and the payment of our Assistant Secretary's salary has had to be deferred.

In 1904 Government proposed an expenditure of some £300,000 in the construction of a deep water pier at Inishlrye, some 5 miles from the Westport Port and Harbour, which was to be connected by rail with the M.G.W. Railway and worked by them, but owing to various reasons this scheme was abandoned, and in lieu thereof they were asked by us and Westport Urban Council to apply these funds towards the cost of constructing a railway between Mulranny and Belmullet and towards the improvement of the Westport Port and Harbour and the Channel leading thereto, and I enclose you (1) copy of a resolution passed by us on the 4th April, 1905, in reference thereto; (2) copy letter of our Secretary dated 5th April, 1905, to the Chief Secretary for Ireland; (3) copy letter dated 1st December, 1903, from the Chief Secretary to me as Chairman of the Board, by which you will see he intended to formulate a proposal carrying out the construction of the Railway between Mulranny and Belmullet, and the improvement to Westport Port and Harbour and Channel leading thereto, had his term as Chief Secretary not been determined.

From the facts stated and the particulars given it is perfectly plain that owing to the loss of revenue in consequence of the War, which has completely stopped all shipping to and from the Port, without financial assistance from Government the Port will be closed, which will result in a very serious loss indeed to the district and surrounding ones, and suggest that a sum sufficient to enable the dredging of the Harbour and Channel thereto to be resumed should be granted by Government to the Commissioners for the next five years, which I estimate would cost £800 a year.

Trusting the Members of your Committee will give the matters mentioned serious consideration, and recommend that under the circumstances we are entitled to assistance, and if there is any further information I can afford them, either by letter, or by an interview, shall be glad to do so.

Yours truly,

THOMAS KUTTLERER,
Chairman Westport Port and Harbour Commissioners.

The Secretary,
Inland Transport Committee,
Dublin.

(b)

COPY RESOLUTION OF WESTPORT HARBOUR COMMISSIONERS—4TH APRIL, 1905.

"That in the event of the Marine Works at Inishlrye being abandoned, the Westport Harbour Commissioners earnestly desire that a portion of the funds allotted for these works should be applied towards the extension of the present Quay at Westport, and towards the deepening, widening and improvement of the Channel thereto, and desire to point out that doing so would practically ensure nearly all the advantages claimed for Inishlrye, with the exception of the establishment of a Harbour of Refuge. If a reasonable depth of water was provided for all tides at Westport Quay, it would only mean an addition of 25 minutes steaming between the two places where vessels could connect with the existing railway, and so save the proposed new line to Inishlrye. The Commissioners are of opinion that one-third of the money voted for the Marine Works at Inishlrye would be ample to provide all these advantages for Westport, which would be of lasting benefit to the town and district and to the country generally, and they therefore respectfully apply to the Government to take the matter into consideration."

(c)

COPY LETTER.

5th September, 1905

Sir,—I am desired by the Westport Harbour Commissioners to direct your attention to the Resolution passed by them on the 4th April last, copy herein, in reference to allotting a portion of the Marine Grant, which was proposed to be laid out at Inishlrye, to Westport Harbour. In case the works there were abandoned, and since then as work has not been proceeded with, and the Midland Great Western Railway Company declines to construct the branch line to the Harbour, the Commissioners must assume that the construction of the Inishlrye Works have or will be abandoned, and therefore they desire to impress upon Government the necessity of allotting even a portion of the money proposed to be laid out at Inishlrye for the improvement of Westport Harbour in the manner stated in their resolution, and they are satisfied the

works contemplated will be of vast importance and benefit to Westport Harbour and to the surrounding district and country generally, and have no doubt that the Government will give the matter their serious consideration.

I am, Sir,

Your obedient Servant,

JOSEPH McBRIDE,

Secretary, Westport Harbour Commissioners

To the Right Hon. W. H. Long, P.C.,
Chief Secretary for Ireland.

(d)

COPY LETTER.

CHIEF SECRETARY'S OFFICE,

DUBLIN CASTLE, 16th December, 1905.

Dear Mr. Rutledge,

When I had the pleasure of meeting you recently in Dublin, I promised to let you know the conclusions at which I might arrive in respect of the works projected at Inishlyre.

You are aware I have given this matter my most careful consideration, and that I have freely consulted local opinion on the merits of the scheme. The determination of the Midland Great Western Railway Company to refuse to contribute towards the construction of the branch line to Inishlyre, and their unwillingness to work the line, even if constructed free of all expense to the Company, interpose, in my judgment, an insuperable barrier to the carrying out of the scheme as originally proposed. But even were the facts otherwise, I have very grave doubts whether the expenditure of public funds on Harbour works of such magnitude as were contemplated at Inishlyre could possibly be justified by the results to be obtained. An alternative scheme that much commends itself to me is the opening and development of the North Mayo districts by means of railway communication from Malinbeg to Belmullet. An extension of the existing line of railway to the latter town, in addition to other advantages, would develop the fisheries of North Mayo, and would remove one of the main obstacles to the utilisation of Blacksod Bay as a Port of Call and Harbour of Refuge for large merchant vessels or the ships of His Majesty's Navy. The cost of this Railway undertaking would be larger than that estimated for the Inishlyre Scheme, but in view of the difficulties already adverted to, it was my intention, if in office, to seriously consider in substitution for the latter scheme the practicability of providing the requisite "ways and means" out of funds at the disposal of Government for the construction of the Belmullet line. I may state in this connection that I had great hopes of being able to carry this project to a successful issue.

The claims of Westport town to improved quays and the necessity that admittedly exists of carrying out dredging operations with a view to enable vessels to approach the quays, have not been overlooked by me, and I had also intended to formulate a proposal respecting these matters concurrently with the proposal which it was my intention to make on the subject of the alternative scheme of railway communication to Belmullet.

I regret that as my term as Chief Secretary has now terminated I am precluded from carrying my proposals to completion.

With kind regards,

Yours very truly,

(Signed) WALTER H. LONG,

Chief Secretary for Ireland.

Thomas Rutledge, Esq.

VI.—PROPOSED CANAL EXTENSION TO KILOORMAC, KING'S COUNTY.

(a)

KILOORMAC TOWN IMPROVEMENT COMMITTEE,

KILOORMAC, KING'S COUNTY,

6th September, 1913.

Sir Arthur Shirley Bann, Esq., M.P.

Dear Sir,—The above Committee saw the advertisement re improving the Irish Inland Transport facilities by opening up and improving the existing Waterways. The Committee, which is a representative one, decided on applying for the opening up of a short piece of a new [canal] line as described by E. J. O'Sullivan, Esq., County Surveyor, whose detailed Report is enclosed. There will be no claim for rights as regards the cutting as one of the largest landowners will freely give his consent to the scheme. There is a sand pit, also a quarry, quite convenient. As regards the tonnage to and from Kiloormac, the separate list enclosed details and describes same. Over eighty square miles of tillage country containing a large population would be benefited by the proposed Canal extension. Seven fairs are held annually in the town and there is a weekly market. Within a radius of from half mile to two miles there are four saw mills and one oatmeal mill.

If it would be agreeable to you to receive our engineer and a deputation from the Committee, we would be prepared to wait on you any time you appoint. Hoping you will give our application due consideration,

Yours faithfully,

(Signed)

P. SCULLY, Hon. Sec.

(b)
ESTIMATED TONNAGE.

Agricultural Produce bought and stored annually:—

Barley	-	-	-	-	-	-	-	-	20,000	barrels
Oats	-	-	-	-	-	-	-	-	10,000	"
Wheat	-	-	-	-	-	-	-	-	1,000	"

The district also produces a very large supply of potatoes, and could produce unlimited quantities of turf, while Kilsormac is one of the principal centres of pig production in the county.

Incoming traffic.	Tons.
Manures	500
Basic slag	300
Feeding cake	300
Flour	800
Mill offal	1,500
Imported bacon	70
Coal	500
Slates	500
Bricks	1,000
Peat	100
Cement	200
Iron	100
Seeds	100

P.8.—Some years ago the Grand Canal Company constructed an eight-mile extension to the town of Kilbeggan in Co. Westmeath (which has a railway within three miles of it), although that town could not show the tonnage detailed above.

(c)
INLAND WATER TRANSPORT FACILITIES—KILSORMAC, KING'S COUNTY.

To facilitate transport to and from Kilsormac, which is at present disconnected from adjoining Railway and Canal, it is suggested that a branch canal be constructed from a point on the Grand Canal, near McCartney's Aqueduct, in the towaland of Derrycurry, through Lough Boora, to a point in the townland of Kilnagall, within one mile of Kilsormac. Its length would be about five miles, but three quarters of a mile of this would be through Lough Boora.

The level of Canal at McCartney's Aqueduct is 167 O.S.D.; summer level of water in Lough Boora 177 O.S.D.; and the ground level at Kilnagall is 206 O.S.D.

The land through which the branch canal would run is moorland, and is not very valuable, only one public road would have to be crossed, and the proposal would not present any engineering difficulties.

The Canal would serve an area of about 80 square miles, the greater portion of this area is devoted to tillage farming, and Kilsormac is the centre from which most of the products are distributed.

The nearest point to Kilsormac of the Grand Canal, from which materials can be shipped, is Gallen Bridge, a distance of eight miles. Tullamore, to which place most of the products are sent for despatch by rail or canal, is 12 miles by road from Kilsormac. But is 2½ miles by road from Kilsormac, but goods sent this way to Dublin have 40 miles extra travel journey over Tullamore route. Banagher is 14 miles by road from Kilsormac, but goods sent this way to Dublin have 26 miles extra journey over the Tullamore route.

(Signed) T. J. O'SHELVAN, A.M.L.C.E.,
County Surveyor,
King's County.

5th September, 1918.

(d)
KING'S COUNTY COMMITTEE OF AGRICULTURE.

Encl. 1.

Corrhouse, Tullamore.
12th September, 1918.

DEAR SIR,

I am directed by my Committee to send you the enclosed copy of a resolution dealing with the development of inland transport facilities, and to ask that your Committee will give the subject thereof due consideration, and notify my Committee of the decision on the matter.

Yours faithfully,
(Signed) W. ROBERTS.

Philip McNulty, Esq.,
Secretary,

Transport Sub-Committee for Ireland,
Mansion House, Dublin

RESOLUTION.

Proposed by Rev. E. O'Reilly, P.P., seconded by the Chairman, and passed unanimously:

(1) "That we learn with satisfaction that the Government are making inquiries about the Transport Facilities offered by the Canals and Ports of Ireland, and receiving suggestions for their development."

(2) "That we recommend the extension of the Grand Canal to Kilsormac district, which is a flourishing agricultural centre, and far removed from railway and canal transit facilities; the scheme, besides, presents no engineering difficulties, would help to drain a large area of bogland, and accommodate in many ways the people of the country for several miles around."

SELECT COMMITTEE
ON
TRANSPORT
(IRISH SUB-COMMITTEE).

MINUTES OF EVIDENCE

3.171

APPENDICES THERETO

AND

STATEMENTS ACCOMPANYING THE SECOND REPORT

OF 1917

IRISH SUB-COMMITTEE

Appointed by the Select Committee on Transport to Investigate and
report upon the facilities for transport offered by

THE PORTS AND CANALS OF IRELAND.

*Ordered, by The House of Commons to be Printed,
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(IRISH SUB-COMMITTEE.)

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I N D E X .

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